Test Report Of ANSI/IES LM-80-15

Approved Method for Measuring Luminous Flux and Color Maintenance of LED Packages, Arrays and Modules

Report Number.....	:	N01A25030888L00101
Client.....	:	Shenzhen 3Ray Lighting Technology Co. Ltd
Address.....	:	No.1, Lougang Ave., Songgang Town, Bao'an District, Shenzhen, China
Test Product Family.	:	EMC5050
Test Part Number.....	:	3R-LS50
Brand Name.....	:	3RLUX
Testing Laboratory...	:	Guangdong GTG Testing Technology Co., Ltd.
Address.....	:	1st floor, B Area, Jinbaisheng Industrial Park, Headquarters 2 Road,Songshan Lake Hi-tech Industrial Development Zone,Dongguan City,Guangdong Pr., China.
Testing Location.....	:	As above
Date of receipt.....	:	2021-03-22
Date of test	:	2021-04-06 to 2023-06-08
Date of report.....	:	2025-03-24

Tested by:	**Checked by:**	**Approved by:**
Jarvis Zhang	Sandy Chen	
Jarvis Zhang/ Test Engineer	Sandy Chen/ Project Engineer	Jessie Li/ Technical Manager

Guangdong GTG Testing Technology Co., Ltd. CERTIFICATE

Note 1: The test data was only valid for the test sample(s).This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or use in part without prior written consent from Guangdong GTG Testing Technology Co., Ltd. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP,NIST, or any agency of the Federal Government.
Note 2: This report does not imply product certification, approval, or endorsement by NVLAP, NIST,or any agency of the Federal Government.

ENERGY STAR® LM-80 Cover Sheet

Administrative Information

Tested Product Family:	EMC5050
Tested Part Number:	3R-LS50

DUT Identification

DUT manufacture's name:	Shenzhen 3Ray Lighting Technology Co. Ltd
DUT identification,e.g., model number:	3R-LS50
Description of DUT,including if the DUT is an LED package or module:	LED Package

DUT Characteristics

Total input power(W):	6 W
Average current density per LED die(mA/mm^2):	472 mA/mm^2
Average power density per LED die(W/mm^2):	0.809 W/mm^2
Representative CRI(Ra) of the tested sample set: (Indicate whether the reported value is the mean or Median value of the sample set,or per unit)	90
Minimum die edge to die edge spacing:	0.04mm

Table of Contents

1. General Information

1.1 Description of LED Light Sources

Sample Size:

225 pcs samples were received on 2021-03-22, the samples were numbered from S1 to S25, S26 to S50, S51 to S75, S76 to S100, S101 to S125, S126 to S150, S151 to S175, S176 to S200 and S201 to S225.

Manufacture: Shenzhen 3Ray Lighting Technology Co. Ltd
Product Family: EMC5050
Part Number: 3R-LS50
Part Type: LED Package
Drive Level: DC 180mA/500mA/960mA
Nominal CCT: 2700K
Power: 1W/3W/6W
CRI: 90

Note: Full test data were based on original report number N02A23050461L00301R1. This report only updates client, manufacture and brand information and testing laboratory information.

Sampling Method:

LED samples for IESNA LM-80 testing consist of units built from three manufacturing lots with each manufacturing lot built from different wafer lots built on non-consecutive days.
These manufacturing lots are picked to represent a wide parametric distribution.

Family products covered by this report:

According to ENERGY STAR® Requirements for the Use of LM-80 Data, the following products can be covered by this report base on the information and declaration provided by manufacturer. The information of these models shows that the covered products meet all section 4 requirements of ENERGY STAR® Requirements for the Use of LM-80 Data (September 28, 2017)

This report covers the following models:

Product Family	Part Number	Number of dies	Current density per die (mA/mm^2)	Current (mA)	Power density (W/mm^2)	Power (W)	Die Spacing (mm)	Current of die (mA)
EMC5050	Test Model 3R-LS50	14	472	960	0.0022	6	0.04	250
	3R-LS5006E0204C27H	8	472	2000	0.0022	6	0.04	250
	3R-LS5024E0801C27H	8	472	2000	0.0022	6	0.04	250
	3R-LS5030E1001C27H	10	472	2000	0.0022	6	0.04	250

Disclaimer:
The truthfulness and accuracy of all the technical information above for the covered LED products is ensured by manufacturer of LED light source.Guangdong GTG Testing Technology Co., Ltd. isn't responsible or gives any guarantees for the truthfulness of the technical information.

1.2 Standards Used

- ANSI/IES LM-80-15 IES Approved Method for Luminous Flux and Color Maintenance of LED Packages,Arrays and Modules
- ENERGY STAR® Requirements for the use of LM-80 Data(This standard was not accredited by NVLAP)

1.3 Test equipment list

Test Equipment	Serial No	Model No	Calibration due date
Integrating Sphere System	01-L-187	0.5m	2025/03/13
Standard Light Source	01-L-188	D062	2025/03/13
High Accuracy Array Spectroradio Meter	01-L-169	HAAS-3000	2025/03/13
Digital Power Meter	01-L-166	PF310	2025/03/13
Precision digital stabilized DC power supply	01-L-167	WY305	2025/03/13
Temperature Tester	01-L-192	UIS-D8036	2026/02/12

Statement of Traceability: Guangdong GTG Testing Technology Co., Ltd.attested that all calibration has been performed using suitable standards traceable to national primary standards and International System of Unit(SI).

1.4 Drive Level

Samples are driven with a constant direct current (DC) during maintenance test, photometric and electrical measurement. The current value was regulated to within ±3% of the specified value of the manufacturer during maintenance test, and was within ±0.5% during photometric and electrical measurement test.

1.5 Ambient Conditions for Maintenance Test

For lumen maintenance test, samples within one data set, were installed on cooling boards in thermal chambers with minimalambient airflow.The case temperature and ambient temperature was monitoredby thermocouples which one was soldered to the coldest DUTs' case (TMP_{LED}) location, while the other is mounted at a distance of 5 mm above the TMP location. During life testing, TMP_{LED} of the coldest LEDs were maintained at a temperature that was greater than or equal to 2°C below the corresponding nominal case temperature. Surrounding air was maintained at a temperature that was greater than or equal to 5°C below the corresponding nominal case temperature. Thermocouples were shielded from direct DUT optical radiation
and comply with ASTM E230 Table 1 "Special Limits". Samples were connected to DC power supply in series circuits with a constant current.The forward current was regulated to within ±3% of the specified value of the manufacturer. The relative humidity within chamber was kept less than 65% during test. For photometry measurement, the ambient temperature during test was set to 25°C ± 2°C, RH＜65%.

1.6 Photometric Measurement Method

Integrating sphere and spectroradiometer is used to measure luminous flux and chromaticity coordinate u'v'.2π measurement was used and sample was drived by DC power supply. The forward current was regulated to within ±0.5% of the nominal value.The test system was calibrated by halogen reference lamp. The ambient temperature during test was set to 25°C ± 2°C, RH <65%. The temperature measurement point was located in the sphere and the temperature was detected by a temperature probe. The uncertainty of the light output(luminous flux) measurements is U=2.1%(K=2),at the 95% confidence level.The uncertainty of the correlated color temperature measurements is U=18K(K=2),at the 95% confidence level.The uncertainty of the temperature is U=0.5°C(K=2),at the 95% confidence level.

1.7 Sample Set

Data Set 1:55°C,180mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞53°C
Ambient Temperature(T_A):	＞50°C
Life Test Drive Current:	180mA
Measurement Current:	180mA

Data Set 2:85°C,180mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞83°C
Ambient Temperature(T_A):	＞80°C
Life Test Drive Current:	180mA
Measurement Current:	180mA

Data Set 3:105°C,180mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞103°C
Ambient Temperature(T_A):	＞100°C
Life Test Drive Current:	180mA
Measurement Current:	180mA

Data Set 4:55°C,500mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞53°C
Ambient Temperature(T_A):	＞50°C
Life Test Drive Current:	500mA
Measurement Current:	500mA

Data Set 5:85°C,500mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞83°C
Ambient Temperature(T_A):	＞80°C
Life Test Drive Current:	500mA
Measurement Current:	500mA

Data Set 6:105°C,500mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞103°C
Ambient Temperature(T_A):	＞100°C
Life Test Drive Current:	500mA
Measurement Current:	500mA

Data Set 7:55°C,960mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞53°C
Ambient Temperature(T_A):	＞50°C
Life Test Drive Current:	960mA
Measurement Current:	960mA

Data Set 8:85°C,960mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞83°C
Ambient Temperature(T_A):	＞80°C
Life Test Drive Current:	960mA
Measurement Current:	960mA

Data Set 9:105°C,960mA	
Part number：	3R-LS50
Number of Units:	25
Case Temperature(T_S):	＞103°C
Ambient Temperature(T_A):	＞100°C
Life Test Drive Current:	960mA
Measurement Current:	960mA

2. Summary of Test Result

Data Set:	Nominal Case & Ambient Temp.	Drive Current	Sample Size	Failures Observed:	Test Interval	Test Duration	Reported TM-21 L_{70} Lifetime	Reported TM-21 L_{80} Lifetime	Reported TM-21 L_{90} Lifetime
1	55°C	180mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	>108000hrs
2	85°C	180mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	>108000hrs
3	105°C	180mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	103000hrs
4	55°C	500mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	>108000hrs
5	85°C	500mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	101000hrs
6	105°C	500mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	88000hrs
7	55°C	960mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	83000hrs
8	85°C	960mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs	52000hrs
9	105°C	960mA	25	0	1000hrs	18000hrs	>108000hrs	98000hrs	45000hrs

Data Set:	Nominal Case & Ambient Temp.	Drive Current	Sample Size	Failures Observed:	Test Interval	Test Duration	Reported TM-21 Q_{90} Lifetime(400-700nm)	Reported TM-21 Q_{90} Lifetime (700-800nm)
1	55°C	180mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs
2	85°C	180mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs
3	105°C	180mA	25	0	1000hrs	18000hrs	102000hrs	103000hrs
4	55°C	500mA	25	0	1000hrs	18000hrs	>108000hrs	>108000hrs
5	85°C	500mA	25	0	1000hrs	18000hrs	100000hrs	100000hrs
6	105°C	500mA	25	0	1000hrs	18000hrs	88000hrs	87000hrs
7	55°C	960mA	25	0	1000hrs	18000hrs	83000hrs	82000hrs
8	85°C	960mA	25	0	1000hrs	18000hrs	52000hrs	51000hrs
9	105°C	960mA	25	0	1000hrs	18000hrs	45000hrs	45000hrs

Data Set 1:55°C,180mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	440000	448000	464000	469000	481000	485000	492000	494000	500000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	275000	280000	290000	293000	300000	303000	307000	308000	312000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	129000	132000	136000	138000	141000	142000	144000	145000	146000

Data Set 2:85°C,180mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	366000	369000	386000	389000	392000	395000	405000	417000	427000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	228000	230000	240000	242000	244000	246000	252000	260000	266000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	106000	108000	111000	112000	113000	114000	118000	122000	124000

Data Set 3:105°C,180mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	354000	355000	361000	362000	367000	368000	373000	380000	382000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	219000	220000	223000	224000	227000	227000	231000	235000	236000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	100000	101000	102000	102000	103000	104000	105000	107000	108000

Average Lumen Maintenance (Percentage of Initial Luminous Flux)

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
1	100.21%	100.14%	100.06%	99.89%	99.71%	99.53%	99.44%	99.34%	99.24%	99.14%	99.05%	98.95%	98.87%	98.79%	98.71%	98.66%	98.62%	98.58%
2	100.12%	99.98%	99.84%	99.67%	99.51%	99.33%	99.20%	99.07%	98.94%	98.85%	98.75%	98.65%	98.55%	98.46%	98.37%	98.30%	98.22%	98.15%
3	100.05%	99.85%	99.65%	99.42%	99.24%	99.06%	98.90%	98.71%	98.54%	98.40%	98.27%	98.16%	98.07%	97.98%	97.90%	97.83%	97.73%	97.68%

Average Photon Flux Maintenance, Photosynthetic (PFMp) (Percentage of Initial Photosynthetic Photon Flux)

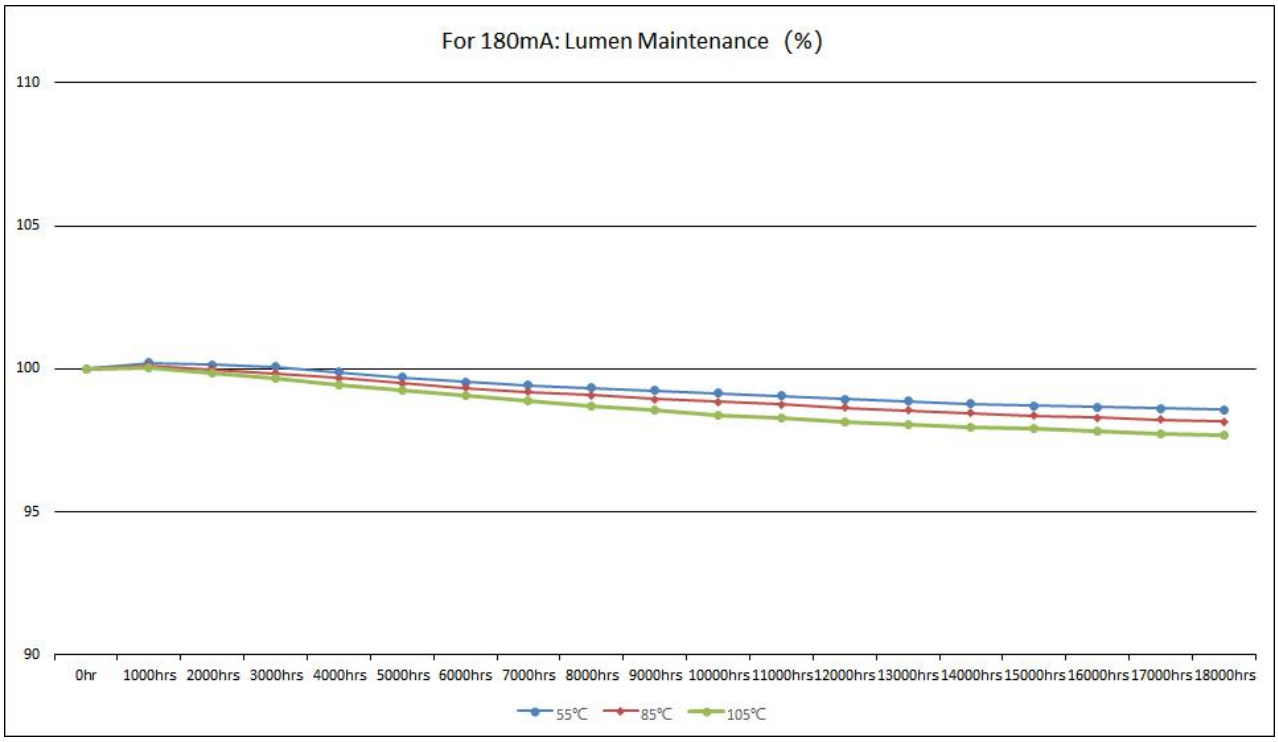
Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
1	100.18%	100.09%	99.99%	99.85%	99.70%	99.56%	99.45%	99.35%	99.23%	99.11%	98.99%	98.87%	98.79%	98.71%	98.62%	98.57%	98.51%	98.45%
2	100.09%	99.97%	99.84%	99.67%	99.50%	99.34%	99.20%	99.06%	98.92%	98.81%	98.69%	98.58%	98.49%	98.41%	98.33%	98.25%	98.18%	98.09%
3	100.02%	99.83%	99.64%	99.44%	99.22%	99.02%	98.83%	98.64%	98.46%	98.33%	98.22%	98.12%	98.03%	97.93%	97.85%	97.77%	97.68%	97.59%

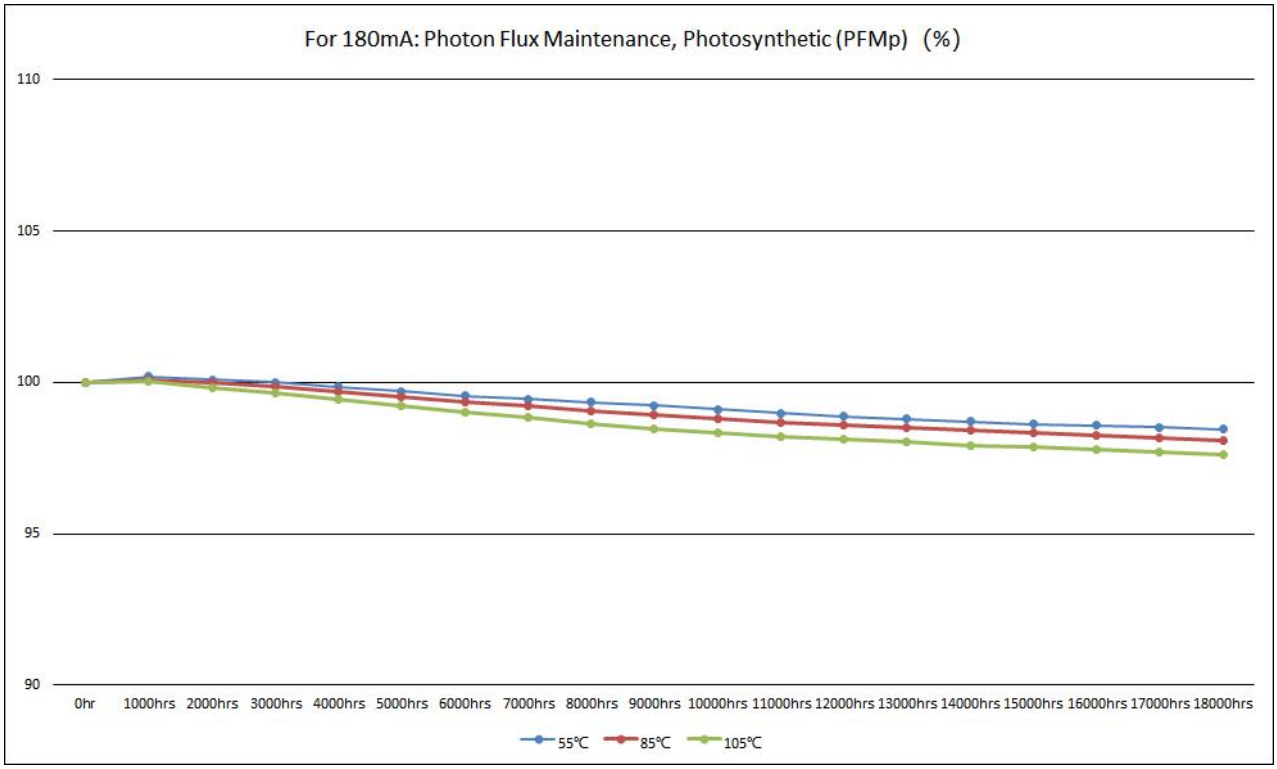
Average Photon Flux Maintenance,Far-Red (PFM_{FR}) (Percentage of Initial Far-Red Photon Flux)

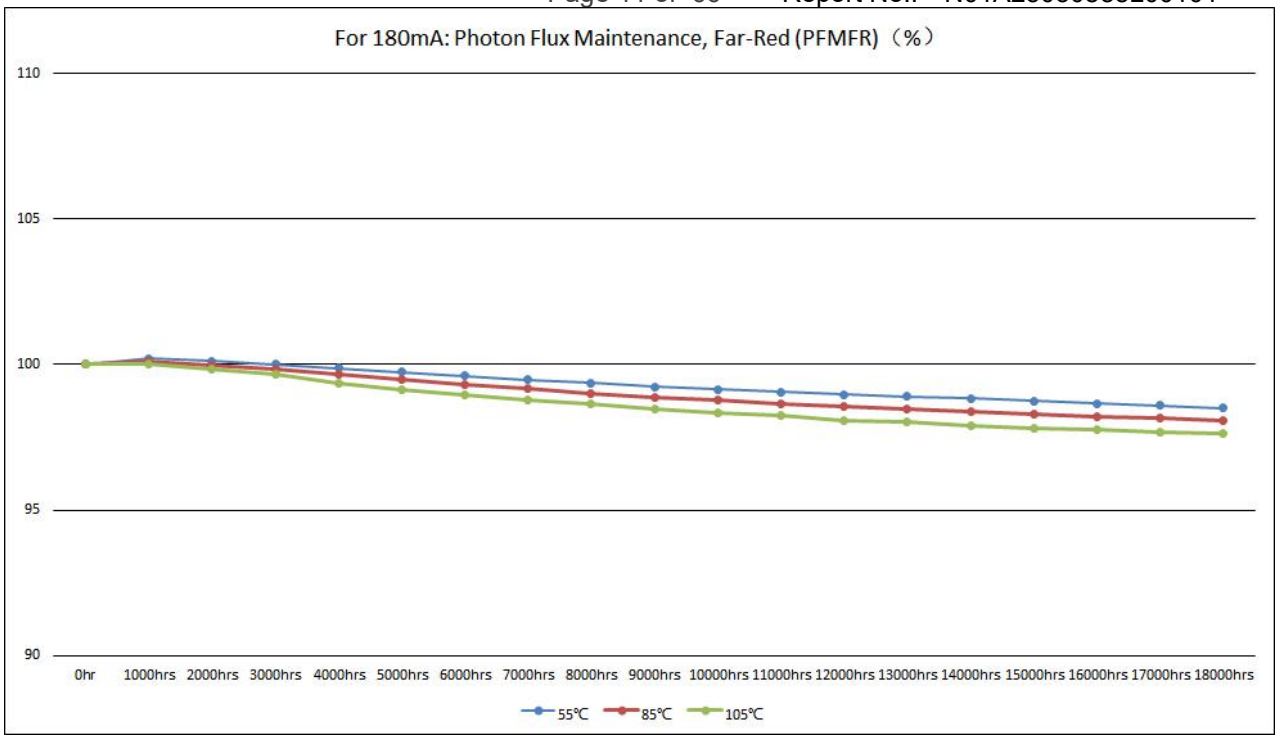
Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
1	100.21%	100.11%	100.01%	99.87%	99.74%	99.61%	99.49%	99.37%	99.25%	99.16%	99.07%	98.98%	98.91%	98.83%	98.76%	98.67%	98.59%	98.51%
2	100.13%	99.98%	99.83%	99.66%	99.48%	99.31%	99.16%	99.02%	98.88%	98.77%	98.65%	98.54%	98.47%	98.38%	98.29%	98.23%	98.16%	98.10%
3	100.03%	99.86%	99.65%	99.38%	99.16%	98.97%	98.79%	98.63%	98.48%	98.34%	98.23%	98.09%	98.02%	97.92%	97.83%	97.76%	97.70%	97.63%

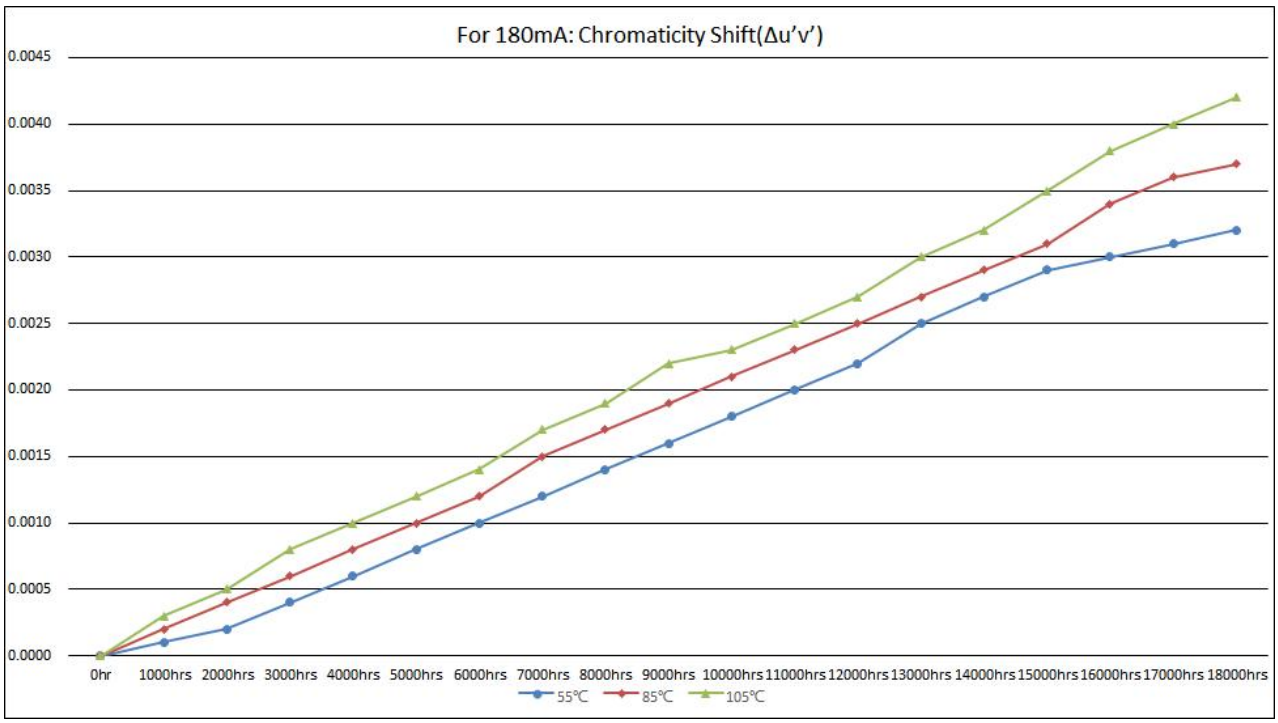
Average Chromaticity Shift (Δu'v')

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
1	0.0001	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0014	0.0016	0.0018	0.0020	0.0022	0.0025	0.0027	0.0029	0.0030	0.0031	0.0032
2	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0015	0.0017	0.0019	0.0021	0.0023	0.0025	0.0027	0.0029	0.0031	0.0034	0.0036	0.0037
3	0.0003	0.0005	0.0008	0.0010	0.0012	0.0014	0.0017	0.0019	0.0022	0.0023	0.0025	0.0027	0.0030	0.0032	0.0035	0.0038	0.0040	0.0042









Data Set 4:55°C,500mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	363000	368000	380000	382000	385000	388000	412000	426000	445000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	227000	229000	236000	238000	240000	242000	257000	265000	276000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	106000	107000	110000	110000	112000	112000	120000	123000	128000

Data Set 5:85°C,500mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	336000	342000	353000	356000	359000	363000	368000	372000	377000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	209000	212000	218000	220000	222000	225000	227000	231000	234000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	96000	97000	100000	101000	102000	103000	104000	105000	107000

Data Set 6:105°C,500mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	304000	306000	310000	312000	320000	324000	324000	330000	336000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	187000	188000	191000	192000	197000	199000	200000	203000	207000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	84000	84000	85000	86000	88000	89000	90000	91000	93000

Average Lumen Maintenance (Percentage of Initial Luminous Flux)

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
4	100.16%	100.02%	99.88%	99.71%	99.53%	99.35%	99.22%	99.09%	98.96%	98.84%	98.72%	98.61%	98.53%	98.44%	98.36%	98.29%	98.22%	98.14%
5	100.06%	99.92%	99.68%	99.47%	99.25%	98.99%	98.81%	98.69%	98.54%	98.41%	98.28%	98.15%	98.05%	97.98%	97.91%	97.82%	97.74%	97.65%
6	99.98%	99.79%	99.53%	99.28%	99.04%	98.73%	98.52%	98.30%	98.10%	97.97%	97.85%	97.73%	97.62%	97.51%	97.44%	97.33%	97.22%	97.13%

Average Photon Flux Maintenance, Photosynthetic (PFMp) (Percentage of Initial Photosynthetic Photon Flux)

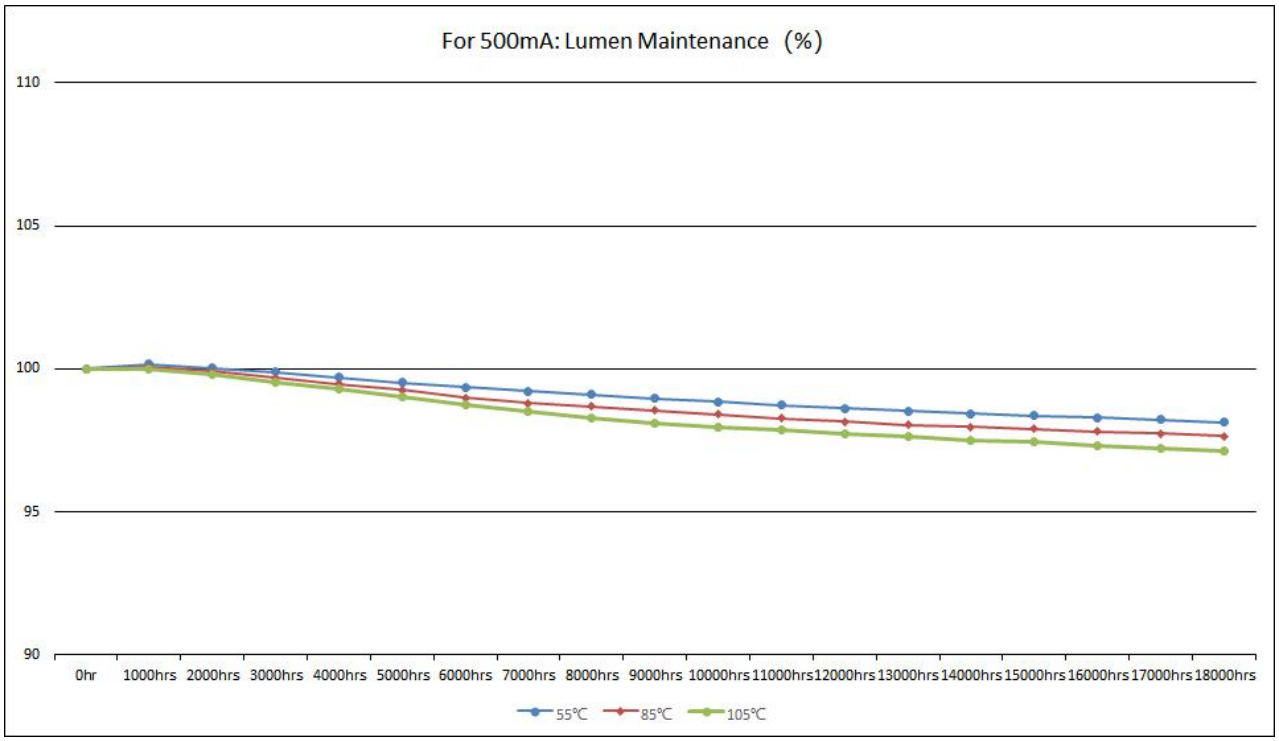
Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
4	100.13%	100.01%	99.89%	99.72%	99.56%	99.40%	99.28%	99.16%	99.04%	98.93%	98.82%	98.71%	98.61%	98.51%	98.42%	98.35%	98.29%	98.22%
5	100.04%	99.90%	99.77%	99.55%	99.34%	99.12%	98.94%	98.76%	98.61%	98.46%	98.35%	98.23%	98.13%	98.03%	97.93%	97.86%	97.79%	97.72%
6	99.95%	99.76%	99.54%	99.31%	99.09%	98.85%	98.64%	98.39%	98.23%	98.07%	97.95%	97.82%	97.70%	97.59%	97.50%	97.39%	97.33%	97.26%

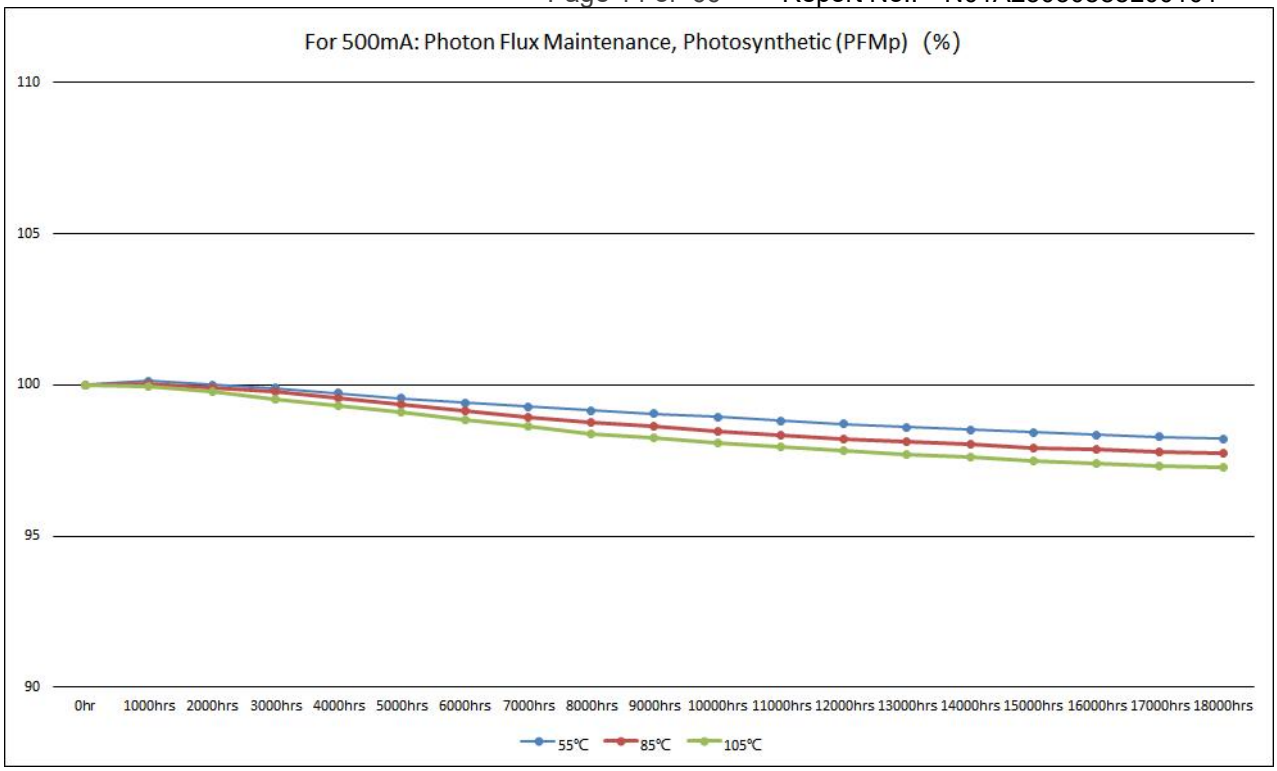
Average Photon Flux Maintenance,Far-Red (PFM_{FR}) (Percentage of Initial Far-Red Photon Flux)

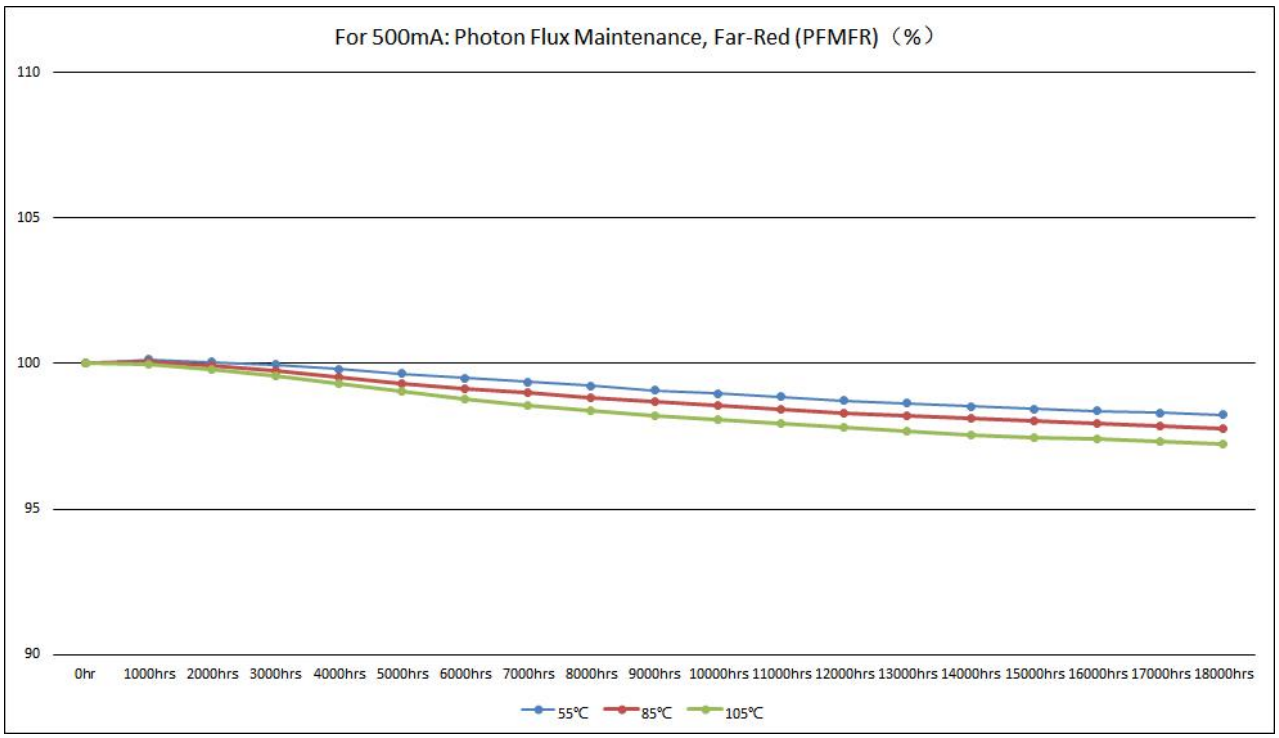
Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
4	100.15%	100.05%	99.96%	99.81%	99.66%	99.51%	99.37%	99.23%	99.08%	98.96%	98.85%	98.73%	98.63%	98.54%	98.44%	98.38%	98.32%	98.25%
5	100.08%	99.95%	99.76%	99.54%	99.32%	99.15%	99.01%	98.85%	98.69%	98.55%	98.42%	98.30%	98.20%	98.10%	98.02%	97.94%	97.86%	97.78%
6	99.98%	99.80%	99.56%	99.30%	99.03%	98.80%	98.58%	98.40%	98.21%	98.08%	97.94%	97.80%	97.68%	97.56%	97.48%	97.41%	97.31%	97.22%

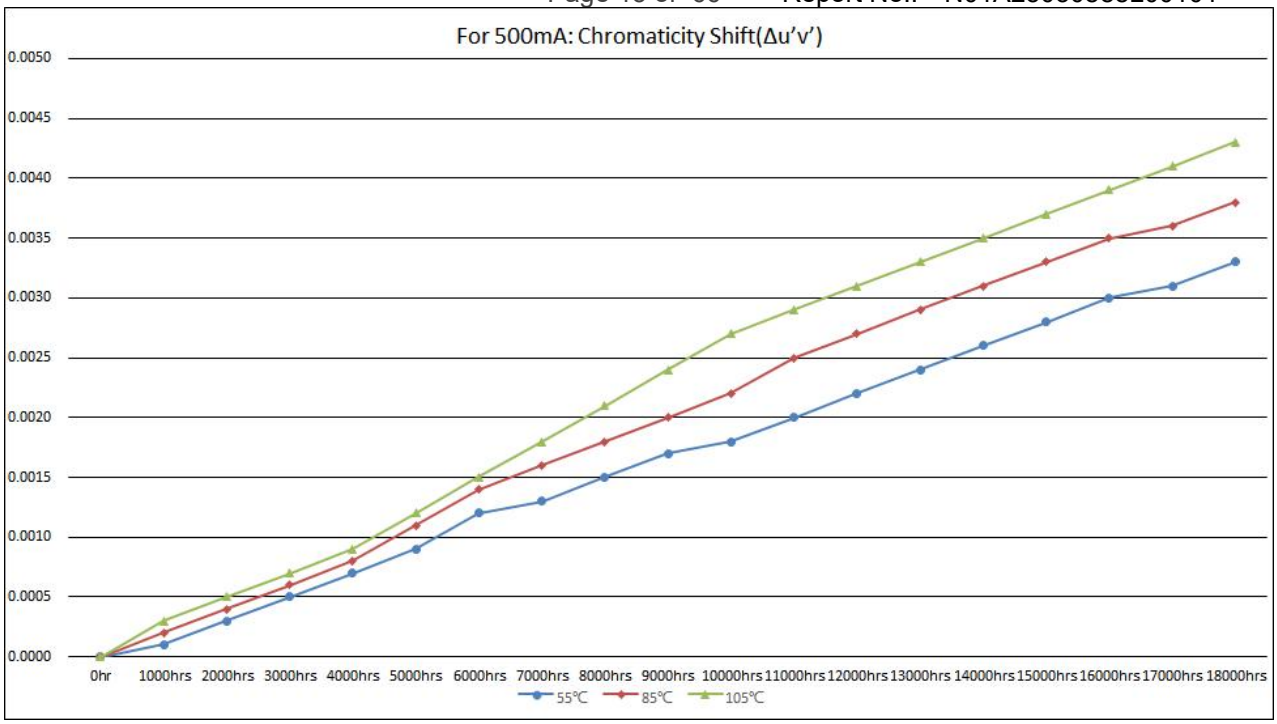
Average Chromaticity Shift (Δu'v')

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
4	0.0001	0.0003	0.0005	0.0007	0.0009	0.0012	0.0013	0.0015	0.0017	0.0018	0.0020	0.0022	0.0024	0.0026	0.0028	0.0030	0.0031	0.0033
5	0.0002	0.0004	0.0006	0.0008	0.0011	0.0014	0.0016	0.0018	0.0020	0.0022	0.0025	0.0027	0.0029	0.0031	0.0033	0.0035	0.0036	0.0038
6	0.0003	0.0005	0.0007	0.0009	0.0012	0.0015	0.0018	0.0021	0.0024	0.0027	0.0029	0.0031	0.0033	0.0035	0.0037	0.0039	0.0041	0.0043




For 500mA: Photon Flux Maintenance, Photosynthetic (PFMp) (%)
110
105
100
95
90
0hr
1000hrs
2000hrs
3000hrs
4000hrs
5000hrs
6000hrs
7000hrs
8000hrs
9000hrs
10000hrs
11000hrs
12000hrs
13000hrs
14000hrs
15000hrs
16000hrs
17000hrs
18000hrs
55℃
85℃
105℃


For 500mA: Photon Flux Maintenance, Far-Red (PFMFR) (%)
110
105
100
95
90
0hr
1000hrs
2000hrs
3000hrs
4000hrs
5000hrs
6000hrs
7000hrs
8000hrs
9000hrs
10000hrs
11000hrs
12000hrs
13000hrs
14000hrs
15000hrs
16000hrs
17000hrs
18000hrs
55℃
85℃
105℃



Data Set 7:55°C,960mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	276000	278000	280000	283000	289000	292000	295000	297000	299000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	172000	173000	175000	177000	180000	182000	184000	185000	186000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	81000	81000	82000	83000	84000	85000	86000	86000	87000

Data Set 8:85°C,960mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	167000	170000	173000	174000	175000	176000	177000	178000	183000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	105000	107000	108000	109000	109000	110000	111000	111000	115000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	50000	51000	51000	51000	52000	52000	52000	53000	54000

Data Set 9:105°C,960mA:

Metric	$L_{70}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	153000	155000	156000	157000	157000	158000	159000	160000	162000
Metric	$L_{80}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	95000	97000	97000	98000	98000	98000	99000	99000	101000
Metric	$L_{90}B_y$								
y	10	20	30	40	50	60	70	80	90
hour	45000	45000	45000	45000	46000	46000	46000	46000	47000

Average Lumen Maintenance (Percentage of Initial Luminous Flux)

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
7	100.13%	99.98%	99.82%	99.61%	99.41%	99.20%	99.04%	98.87%	98.71%	98.57%	98.44%	98.31%	98.18%	98.06%	97.91%	97.82%	97.72%	97.63%
8	100.05%	99.88%	99.71%	99.45%	99.19%	98.94%	98.72%	98.51%	98.30%	98.07%	97.84%	97.61%	97.42%	97.22%	97.02%	96.84%	96.67%	96.50%
9	99.94%	99.71%	99.47%	99.16%	98.85%	98.53%	98.26%	98.00%	97.73%	97.51%	97.28%	97.06%	96.83%	96.61%	96.38%	96.18%	95.98%	95.78%

Average Photon Flux Maintenance, Photosynthetic (PFMp) (Percentage of Initial Photosynthetic Photon Flux)

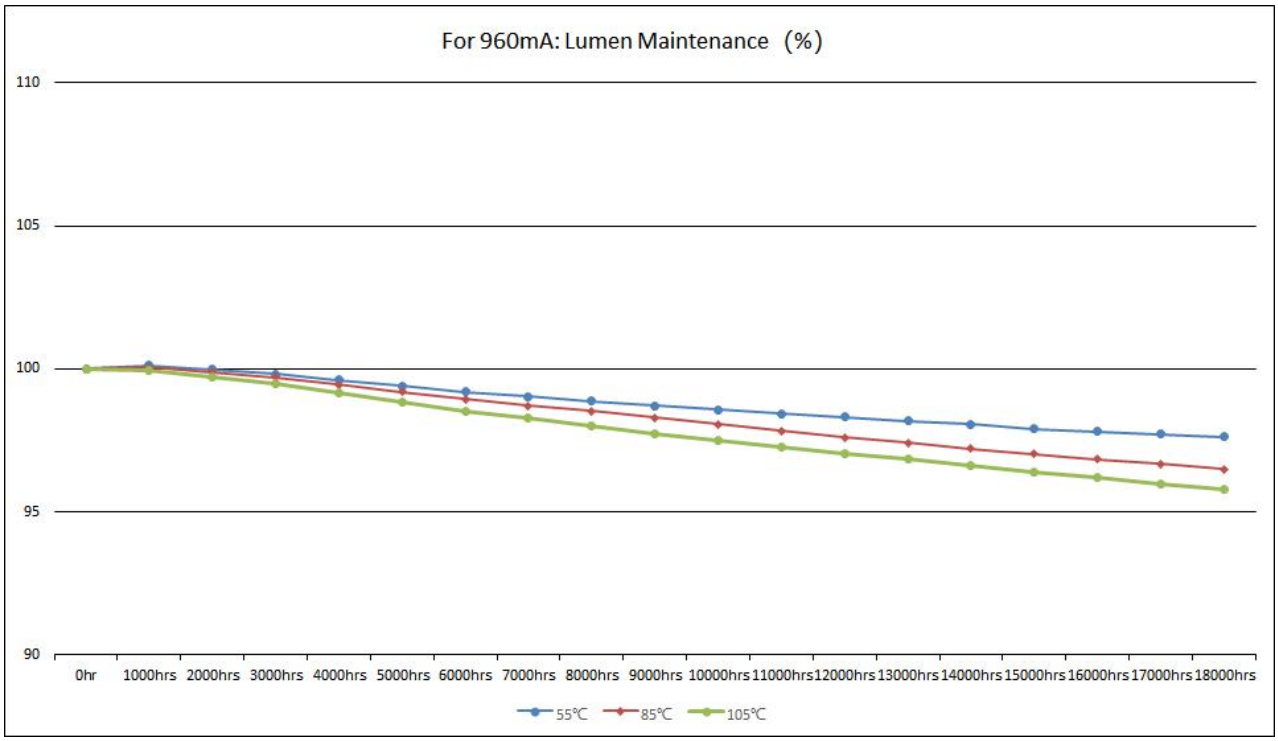
Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
7	100.11%	99.96%	99.77%	99.59%	99.38%	99.17%	99.00%	98.83%	98.66%	98.49%	98.35%	98.21%	98.10%	97.99%	97.87%	97.74%	97.65%	97.55%
8	100.03%	99.80%	99.57%	99.28%	99.02%	98.75%	98.51%	98.27%	98.04%	97.79%	97.58%	97.38%	97.17%	96.98%	96.80%	96.62%	96.48%	96.32%
9	99.92%	99.66%	99.40%	99.07%	98.75%	98.42%	98.15%	97.86%	97.58%	97.33%	97.08%	96.83%	96.62%	96.41%	96.21%	96.02%	95.82%	95.62%

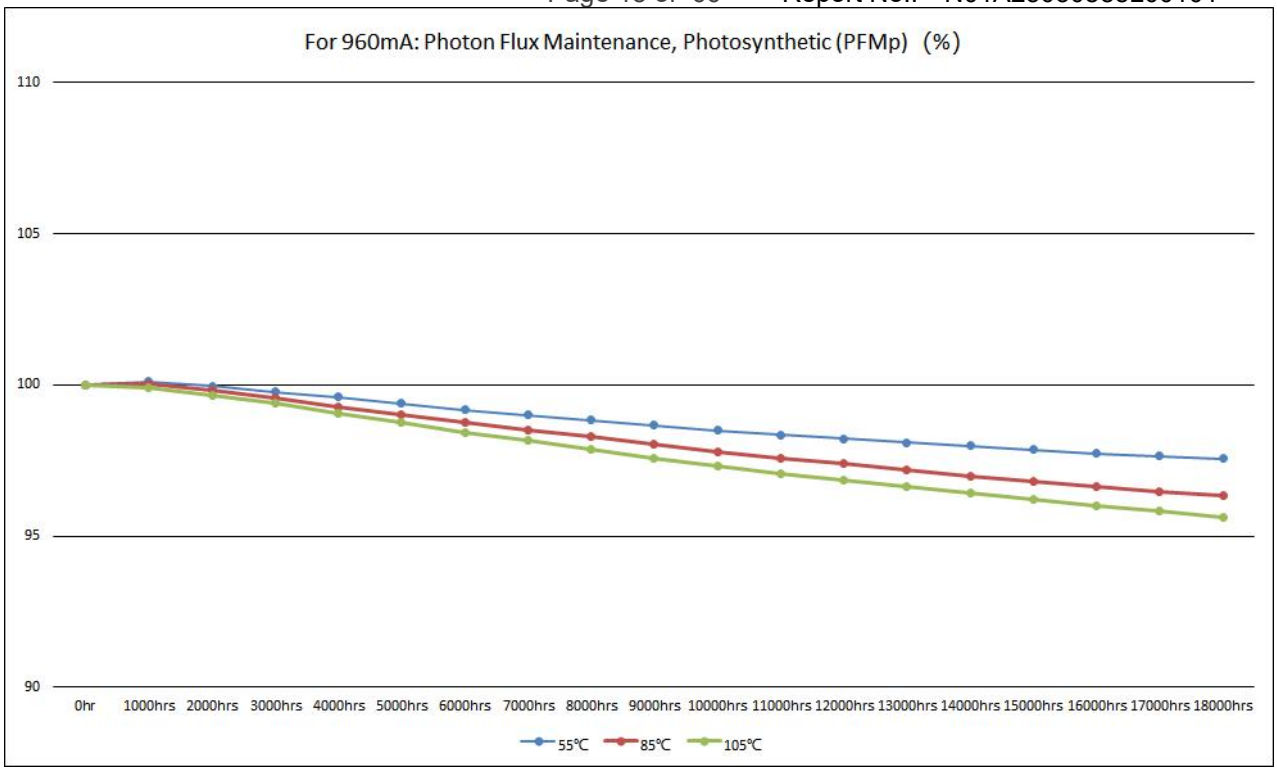
Average Photon Flux Maintenance,Far-Red (PFM_{FR}) (Percentage of Initial Far-Red Photon Flux)

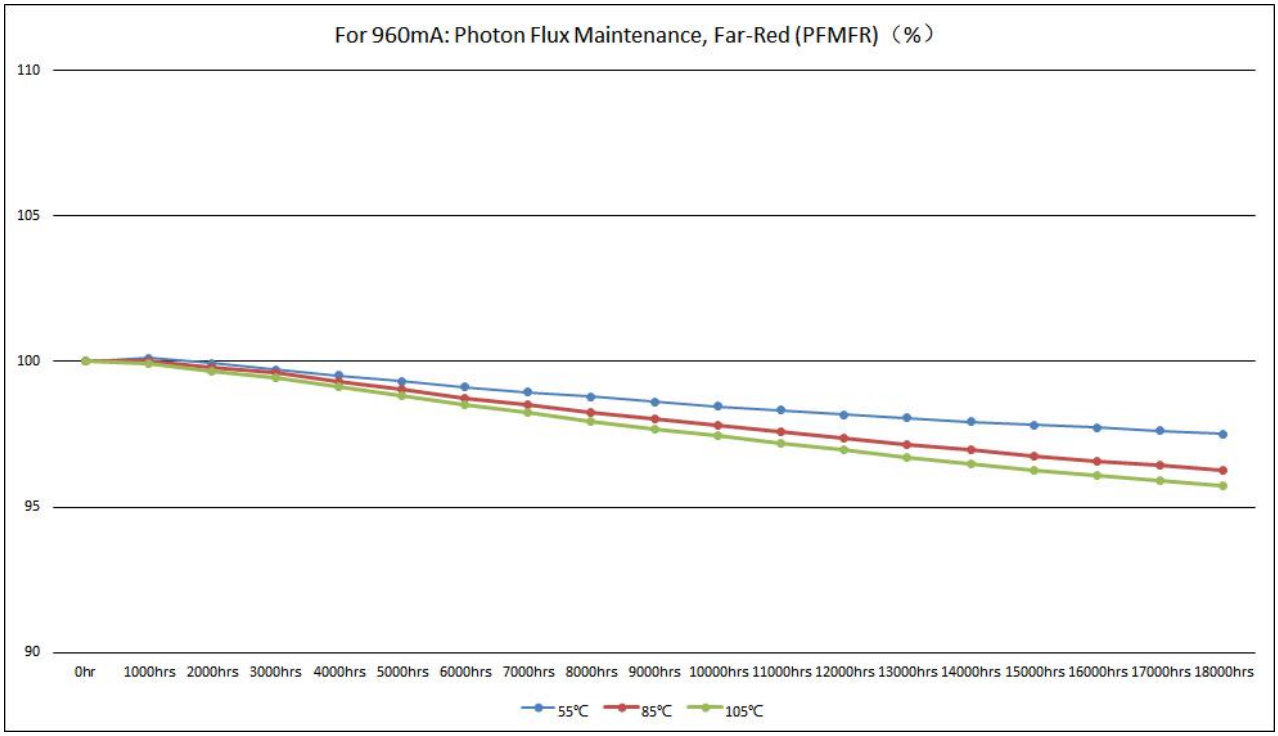
Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
7	100.12%	99.95%	99.73%	99.53%	99.33%	99.13%	98.96%	98.79%	98.61%	98.47%	98.33%	98.18%	98.07%	97.94%	97.81%	97.73%	97.62%	97.51%
8	100.03%	99.81%	99.61%	99.32%	99.04%	98.74%	98.50%	98.26%	98.03%	97.81%	97.58%	97.37%	97.16%	96.95%	96.74%	96.59%	96.43%	96.28%
9	99.94%	99.68%	99.43%	99.13%	98.84%	98.54%	98.25%	97.96%	97.69%	97.45%	97.21%	96.95%	96.72%	96.49%	96.26%	96.08%	95.90%	95.72%

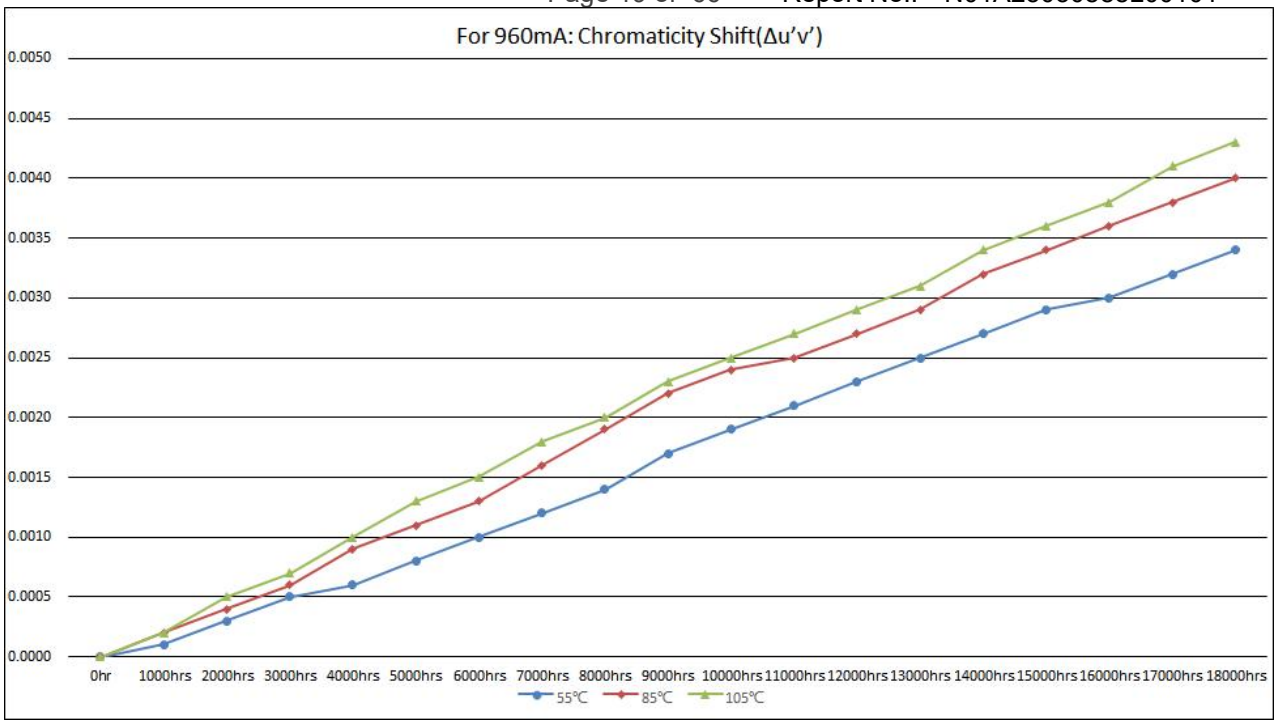
Average Chromaticity Shift (Δu'v')

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
7	0.0001	0.0003	0.0005	0.0006	0.0008	0.0010	0.0012	0.0014	0.0017	0.0019	0.0021	0.0023	0.0025	0.0027	0.0029	0.0030	0.0032	0.0034
8	0.0002	0.0004	0.0006	0.0009	0.0011	0.0013	0.0016	0.0019	0.0022	0.0024	0.0025	0.0027	0.0029	0.0032	0.0034	0.0036	0.0038	0.0040
9	0.0002	0.0005	0.0007	0.0010	0.0013	0.0015	0.0018	0.0020	0.0023	0.0025	0.0027	0.0029	0.0031	0.0034	0.0036	0.0038	0.0041	0.0043




For 960mA: Photon Flux Maintenance, Photosynthetic (PFMp) (%)
110
105
100
95
90
0hr
1000hrs
2000hrs
3000hrs
4000hrs
5000hrs
6000hrs
7000hrs
8000hrs
9000hrs
10000hrs
11000hrs
12000hrs
13000hrs
14000hrs
15000hrs
16000hrs
17000hrs
18000hrs
55℃
85℃
105℃


For 960mA: Photon Flux Maintenance, Far-Red (PFMFR) (%)
110
105
100
95
90
0hr
1000hrs
2000hrs
3000hrs
4000hrs
5000hrs
6000hrs
7000hrs
8000hrs
9000hrs
10000hrs
11000hrs
12000hrs
13000hrs
14000hrs
15000hrs
16000hrs
17000hrs
18000hrs
55℃
85℃
105℃


For 960mA: Chromaticity Shift(Δu'v')
0.0050
0.0045
0.0040
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0hr
1000hrs
2000hrs
3000hrs
4000hrs
5000hrs
6000hrs
7000hrs
8000hrs
9000hrs
10000hrs
11000hrs
12000hrs
13000hrs
14000hrs
15000hrs
16000hrs
17000hrs
18000hrs
55℃
85℃
105℃

3. Test Data

3.1 Data Set 1, 55°C, 180mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S1	171.4	100.15	100.08	100.01	99.84	99.67	99.49	99.40	99.31	99.23	99.15	99.03	98.91	98.83	98.74	98.67	98.64	98.61	98.57
S2	171.5	100.18	100.10	100.03	99.86	99.69	99.51	99.42	99.33	99.25	99.17	99.09	99.01	98.92	98.85	98.77	98.74	98.71	98.67
S3	171.8	100.27	100.19	100.12	99.95	99.77	99.58	99.50	99.41	99.33	99.25	99.17	99.05	98.98	98.90	98.83	98.77	98.73	98.69
S4	171.2	100.21	100.14	100.06	99.89	99.72	99.54	99.45	99.36	99.24	99.16	99.06	98.97	98.88	98.78	98.71	98.67	98.64	98.61
S5	171.0	100.26	100.19	100.11	99.94	99.77	99.60	99.51	99.43	99.31	99.19	99.11	99.02	98.94	98.87	98.79	98.73	98.67	98.63
S6	171.4	100.20	100.12	100.05	99.88	99.71	99.54	99.45	99.37	99.25	99.13	99.04	98.91	98.84	98.74	98.65	98.59	98.52	98.49
S7	171.9	100.21	100.14	100.07	99.89	99.71	99.54	99.45	99.33	99.21	99.09	98.99	98.87	98.80	98.71	98.63	98.57	98.50	98.47
S8	172.1	100.26	100.19	100.11	99.94	99.75	99.58	99.46	99.37	99.25	99.16	99.06	98.98	98.90	98.83	98.76	98.73	98.67	98.60
S9	171.4	100.19	100.12	100.05	99.87	99.69	99.52	99.43	99.34	99.22	99.10	99.02	98.93	98.86	98.76	98.67	98.64	98.60	98.57
S10	170.8	100.22	100.15	100.07	99.90	99.72	99.54	99.46	99.37	99.28	99.19	99.09	99.00	98.93	98.83	98.76	98.73	98.70	98.64
S11	171.9	100.23	100.16	100.08	99.91	99.74	99.55	99.46	99.37	99.28	99.20	99.11	99.03	98.95	98.88	98.81	98.74	98.71	98.64
S12	171.5	100.23	100.15	100.08	99.90	99.72	99.54	99.46	99.37	99.25	99.17	99.08	99.00	98.92	98.83	98.74	98.67	98.61	98.57
S13	171.9	100.17	100.09	100.02	99.84	99.67	99.50	99.38	99.29	99.20	99.12	99.00	98.88	98.80	98.72	98.65	98.61	98.57	98.54
S14	172.7	100.23	100.16	100.08	99.90	99.73	99.56	99.47	99.39	99.27	99.19	99.10	98.98	98.88	98.81	98.74	98.71	98.67	98.63
S15	172.6	100.21	100.14	100.07	99.89	99.70	99.52	99.40	99.31	99.19	99.11	99.02	98.94	98.87	98.77	98.70	98.67	98.61	98.58
S16	171.9	100.18	100.11	100.03	99.86	99.68	99.51	99.39	99.27	99.18	99.09	99.01	98.93	98.84	98.77	98.69	98.63	98.59	98.56
S17	171.7	100.20	100.12	100.05	99.87	99.69	99.51	99.39	99.27	99.19	99.11	99.02	98.89	98.82	98.75	98.67	98.63	98.60	98.56
S18	171.9	100.18	100.11	100.04	99.86	99.69	99.51	99.39	99.29	99.17	99.05	98.96	98.88	98.79	98.71	98.63	98.57	98.50	98.47
S19	172.4	100.18	100.10	100.03	99.84	99.68	99.49	99.37	99.25	99.17	99.09	98.97	98.85	98.78	98.68	98.59	98.55	98.52	98.45
S20	172.2	100.23	100.16	100.08	99.90	99.73	99.56	99.46	99.34	99.26	99.18	99.09	98.99	98.92	98.83	98.73	98.67	98.64	98.60
S21	172.0	100.22	100.15	100.07	99.89	99.71	99.54	99.44	99.35	99.26	99.18	99.09	98.99	98.90	98.82	98.74	98.70	98.67	98.64
S22	171.9	100.25	100.18	100.10	99.93	99.75	99.57	99.45	99.36	99.24	99.12	99.00	98.91	98.83	98.76	98.69	98.63	98.57	98.53
S23	171.8	100.17	100.10	100.02	99.85	99.68	99.50	99.41	99.32	99.23	99.14	99.04	98.92	98.85	98.77	98.70	98.64	98.57	98.51
S24	172.5	100.24	100.17	100.09	99.91	99.73	99.55	99.46	99.37	99.28	99.18	99.09	98.99	98.92	98.83	98.76	98.73	98.69	98.66
S25	172.7	100.16	100.09	100.01	99.84	99.67	99.49	99.40	99.32	99.20	99.08	98.98	98.89	98.81	98.74	98.66	98.62	98.59	98.56
Ave.	171.8	100.21	100.14	100.06	99.89	99.71	99.53	99.44	99.34	99.24	99.14	99.05	98.95	98.87	98.79	98.71	98.66	98.62	98.58
Med.	171.9	100.21	100.14	100.07	99.89	99.71	99.54	99.45	99.34	99.24	99.15	99.04	98.94	98.87	98.77	98.70	98.67	98.61	98.57
St dev	0.5034	0.0326	0.0327	0.0326	0.0323	0.0300	0.0310	0.0378	0.0439	0.0417	0.0471	0.0520	0.0565	0.0557	0.0578	0.0605	0.0615	0.0665	0.0652
Min.	170.8	100.15	100.08	100.01	99.84	99.67	99.49	99.37	99.25	99.17	99.05	98.96	98.85	98.78	98.68	98.59	98.55	98.50	98.45
Max.	172.7	100.27	100.19	100.12	99.95	99.77	99.60	99.51	99.43	99.33	99.25	99.17	99.05	98.98	98.90	98.83	98.77	98.73	98.69

3.2 Data Set 1, 55°C, 180mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S1	2.678	100.19	100.11	100.02	99.84	99.66	99.55	99.43	99.32	99.19	99.06	98.94	98.81	98.73	98.65	98.56	98.48	98.40	98.36
S2	2.677	100.17	100.09	99.98	99.85	99.67	99.49	99.37	99.25	99.13	99.02	98.89	98.77	98.68	98.61	98.52	98.48	98.44	98.36
S3	2.678	100.15	100.05	99.94	99.76	99.58	99.40	99.28	99.19	99.07	98.94	98.81	98.71	98.62	98.55	98.46	98.42	98.36	98.32
S4	2.677	100.14	100.05	99.95	99.82	99.64	99.46	99.34	99.22	99.09	98.96	98.84	98.73	98.64	98.57	98.48	98.40	98.36	98.32
S5	2.677	100.18	100.08	99.99	99.86	99.73	99.60	99.49	99.37	99.25	99.14	99.01	98.88	98.80	98.71	98.63	98.57	98.53	98.47
S6	2.677	100.24	100.13	100.03	99.90	99.77	99.63	99.55	99.44	99.32	99.21	99.11	99.00	98.91	98.82	98.74	98.70	98.62	98.58
S7	2.677	100.15	100.04	99.94	99.81	99.68	99.55	99.43	99.31	99.19	99.07	98.96	98.83	98.74	98.66	98.57	98.53	98.47	98.41
S8	2.678	100.13	100.03	99.92	99.79	99.66	99.55	99.47	99.35	99.23	99.11	98.98	98.85	98.77	98.68	98.59	98.55	98.51	98.47
S9	2.677	100.20	100.12	100.04	99.93	99.82	99.69	99.56	99.44	99.32	99.21	99.11	99.00	98.91	98.84	98.77	98.73	98.64	98.60
S10	2.677	100.20	100.12	100.01	99.88	99.77	99.66	99.58	99.46	99.33	99.22	99.09	98.97	98.89	98.81	98.72	98.68	98.60	98.51
S11	2.673	100.13	100.05	99.94	99.81	99.68	99.50	99.42	99.31	99.19	99.06	98.93	98.81	98.72	98.64	98.55	98.49	98.45	98.39
S12	2.674	100.20	100.10	100.00	99.89	99.76	99.62	99.50	99.37	99.26	99.13	99.03	98.90	98.81	98.74	98.65	98.57	98.49	98.41
S13	2.674	100.18	100.09	100.01	99.83	99.65	99.54	99.42	99.33	99.21	99.08	98.97	98.84	98.77	98.68	98.61	98.57	98.53	98.47
S14	2.674	100.15	100.04	99.94	99.76	99.58	99.40	99.27	99.19	99.08	98.97	98.84	98.73	98.66	98.59	98.51	98.43	98.35	98.29
S15	2.675	100.15	100.04	99.94	99.81	99.70	99.52	99.41	99.32	99.24	99.11	98.98	98.86	98.77	98.70	98.62	98.57	98.49	98.43
S16	2.675	100.14	100.04	99.94	99.83	99.70	99.52	99.39	99.28	99.16	99.05	98.92	98.82	98.73	98.64	98.56	98.52	98.43	98.37
S17	2.675	100.22	100.13	100.05	99.87	99.74	99.61	99.53	99.45	99.32	99.19	99.07	98.94	98.85	98.78	98.71	98.65	98.57	98.51
S18	2.675	100.19	100.11	100.03	99.85	99.74	99.61	99.49	99.38	99.30	99.19	99.08	98.97	98.89	98.80	98.71	98.65	98.61	98.57
S19	2.675	100.24	100.13	100.03	99.90	99.72	99.54	99.45	99.33	99.22	99.11	98.98	98.87	98.79	98.70	98.63	98.55	98.46	98.42
S20	2.675	100.23	100.14	100.04	99.91	99.73	99.62	99.50	99.39	99.26	99.16	99.05	98.92	98.85	98.76	98.69	98.65	98.57	98.53
S21	2.675	100.22	100.12	100.02	99.84	99.70	99.52	99.44	99.33	99.21	99.09	98.98	98.87	98.79	98.71	98.64	98.60	98.56	98.48
S22	2.679	100.19	100.11	100.01	99.90	99.72	99.61	99.48	99.40	99.28	99.15	99.02	98.91	98.83	98.74	98.66	98.62	98.56	98.47
S23	2.680	100.22	100.12	100.03	99.90	99.77	99.66	99.58	99.50	99.38	99.25	99.12	99.00	98.91	98.82	98.74	98.70	98.66	98.57
S24	2.680	100.22	100.11	100.01	99.88	99.70	99.59	99.51	99.39	99.27	99.14	99.01	98.88	98.79	98.71	98.62	98.54	98.50	98.46
S25	2.681	100.13	100.05	99.95	99.81	99.68	99.55	99.44	99.36	99.27	99.15	99.04	98.91	98.83	98.75	98.67	98.61	98.52	98.44
Ave.	2.677	100.18	100.09	99.99	99.85	99.70	99.56	99.45	99.35	99.23	99.11	98.99	98.87	98.79	98.71	98.62	98.57	98.51	98.45
Med.	2.677	100.19	100.10	100.01	99.85	99.70	99.55	99.45	99.35	99.24	99.11	98.98	98.87	98.79	98.71	98.63	98.57	98.51	98.46
St dev	0.0021	0.0359	0.0371	0.0415	0.0459	0.0569	0.0756	0.0832	0.0805	0.0814	0.0825	0.0854	0.0840	0.0837	0.0819	0.0829	0.0890	0.0868	0.0852
Min.	2.673	100.13	100.03	99.92	99.76	99.58	99.40	99.27	99.19	99.07	98.94	98.81	98.71	98.62	98.55	98.46	98.40	98.35	98.29
Max.	2.681	100.24	100.14	100.05	99.93	99.82	99.69	99.58	99.50	99.38	99.25	99.12	99.00	98.91	98.84	98.77	98.73	98.66	98.60

3.3 Data Set 1, 55°C, 180mA (Photon Flux Maintenance,Far-Red (PFMFR))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S1	0.1830	100.22	100.13	100.01	99.88	99.77	99.64	99.56	99.41	99.33	99.25	99.16	99.08	99.01	98.95	98.87	98.78	98.70	98.63
S2	0.1833	100.19	100.10	100.01	99.85	99.73	99.61	99.53	99.39	99.25	99.17	99.09	99.00	98.91	98.85	98.78	98.71	98.62	98.53
S3	0.1832	100.19	100.07	99.95	99.80	99.68	99.56	99.42	99.33	99.19	99.09	98.99	98.90	98.81	98.75	98.68	98.61	98.52	98.43
S4	0.1831	100.18	100.06	99.95	99.83	99.70	99.55	99.46	99.32	99.18	99.08	98.99	98.91	98.86	98.76	98.68	98.59	98.51	98.42
S5	0.1832	100.16	100.07	99.99	99.86	99.74	99.63	99.49	99.40	99.26	99.18	99.10	99.02	98.96	98.90	98.83	98.74	98.65	98.57
S6	0.1830	100.25	100.16	100.04	99.92	99.77	99.65	99.56	99.43	99.34	99.23	99.15	99.06	98.97	98.91	98.83	98.77	98.70	98.61
S7	0.1831	100.24	100.15	100.03	99.92	99.76	99.60	99.46	99.38	99.24	99.15	99.07	98.99	98.93	98.85	98.80	98.73	98.64	98.55
S8	0.1832	100.15	100.06	99.97	99.82	99.69	99.57	99.43	99.29	99.21	99.12	99.04	98.96	98.90	98.82	98.73	98.64	98.55	98.47
S9	0.1831	100.25	100.13	100.04	99.92	99.76	99.61	99.47	99.38	99.24	99.13	99.05	98.97	98.91	98.81	98.76	98.67	98.58	98.49
S10	0.1831	100.22	100.10	100.01	99.86	99.73	99.61	99.52	99.43	99.29	99.21	99.10	99.02	98.96	98.86	98.79	98.70	98.61	98.52
S11	0.1852	100.15	100.07	99.98	99.86	99.74	99.61	99.47	99.33	99.24	99.16	99.08	99.00	98.92	98.85	98.79	98.70	98.64	98.55
S12	0.1853	100.23	100.14	100.02	99.87	99.75	99.63	99.49	99.35	99.27	99.16	99.06	98.98	98.92	98.84	98.75	98.68	98.59	98.52
S13	0.1852	100.22	100.10	100.01	99.86	99.73	99.62	99.53	99.39	99.25	99.17	99.09	99.01	98.93	98.84	98.78	98.69	98.60	98.51
S14	0.1853	100.24	100.12	100.03	99.91	99.76	99.63	99.49	99.36	99.22	99.13	99.05	98.96	98.91	98.81	98.75	98.66	98.58	98.49
S15	0.1853	100.18	100.09	100.00	99.88	99.76	99.64	99.51	99.42	99.33	99.23	99.14	99.04	98.96	98.87	98.79	98.70	98.63	98.57
S16	0.1852	100.20	100.11	99.99	99.87	99.75	99.63	99.49	99.35	99.21	99.10	99.02	98.93	98.88	98.82	98.76	98.69	98.61	98.52
S17	0.1855	100.25	100.16	100.07	99.95	99.80	99.68	99.54	99.45	99.32	99.21	99.13	99.04	98.95	98.85	98.75	98.67	98.58	98.51
S18	0.1852	100.25	100.16	100.07	99.94	99.79	99.66	99.53	99.39	99.25	99.15	99.04	98.96	98.86	98.77	98.67	98.58	98.52	98.45
S19	0.1854	100.25	100.13	100.01	99.90	99.77	99.66	99.52	99.38	99.25	99.16	99.06	98.95	98.90	98.82	98.76	98.68	98.61	98.52
S20	0.1853	100.17	100.08	99.96	99.85	99.72	99.57	99.43	99.29	99.21	99.12	99.02	98.92	98.84	98.78	98.69	98.60	98.53	98.46
S21	0.1854	100.20	100.11	100.02	99.87	99.71	99.60	99.46	99.32	99.23	99.15	99.04	98.96	98.87	98.81	98.75	98.67	98.60	98.51
S22	0.1844	100.26	100.17	100.05	99.89	99.77	99.65	99.52	99.37	99.24	99.16	99.07	98.99	98.91	98.85	98.78	98.71	98.64	98.55
S23	0.1844	100.20	100.11	99.99	99.83	99.71	99.59	99.45	99.37	99.23	99.15	99.04	98.96	98.86	98.77	98.69	98.60	98.52	98.43
S24	0.1844	100.18	100.09	100.00	99.88	99.72	99.56	99.42	99.29	99.15	99.07	98.97	98.88	98.81	98.75	98.68	98.59	98.50	98.41
S25	0.1844	100.18	100.06	99.94	99.82	99.70	99.58	99.49	99.35	99.26	99.18	99.10	99.01	98.91	98.84	98.76	98.67	98.59	98.52
Ave.	0.1843	100.21	100.11	100.01	99.87	99.74	99.61	99.49	99.37	99.25	99.16	99.07	98.98	98.91	98.83	98.76	98.67	98.59	98.51
Med.	0.1844	100.20	100.11	100.01	99.87	99.74	99.61	99.49	99.37	99.24	99.16	99.06	98.98	98.91	98.84	98.76	98.68	98.60	98.52
St dev	0.0010	0.0335	0.0338	0.0348	0.0394	0.0299	0.0355	0.0410	0.0448	0.0464	0.0455	0.0497	0.0494	0.0493	0.0499	0.0528	0.0548	0.0558	0.0563
Min.	0.1830	100.15	100.06	99.94	99.80	99.68	99.55	99.42	99.29	99.15	99.07	98.97	98.88	98.81	98.75	98.67	98.58	98.50	98.41
Max.	0.1855	100.26	100.17	100.07	99.95	99.80	99.68	99.56	99.45	99.34	99.25	99.16	99.08	99.01	98.95	98.87	98.78	98.70	98.63

3.4 Data Set 1, 55°C, 180mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S1	5.486	5.488	5.483	5.484	5.483	5.482	5.477	5.481	5.471	5.476	5.477	5.468	5.474	5.473	5.470	5.469	5.463	5.460	5.457
S2	5.475	5.473	5.474	5.478	5.477	5.473	5.466	5.466	5.463	5.461	5.467	5.460	5.456	5.457	5.459	5.460	5.454	5.453	5.445
S3	5.445	5.488	5.480	5.479	5.484	5.481	5.477	5.472	5.471	5.468	5.472	5.463	5.463	5.468	5.463	5.456	5.459	5.458	5.452
S4	5.481	5.488	5.480	5.484	5.478	5.474	5.472	5.477	5.472	5.472	5.473	5.465	5.463	5.462	5.465	5.463	5.459	5.459	5.456
S5	5.489	5.478	5.479	5.477	5.476	5.470	5.468	5.475	5.470	5.465	5.461	5.465	5.459	5.462	5.463	5.454	5.457	5.456	5.455
S6	5.482	5.490	5.494	5.490	5.488	5.487	5.485	5.490	5.484	5.481	5.475	5.477	5.476	5.474	5.478	5.474	5.464	5.474	5.467
S7	5.474	5.441	5.441	5.437	5.441	5.438	5.443	5.438	5.432	5.439	5.435	5.430	5.432	5.422	5.428	5.426	5.415	5.418	5.416
S8	5.479	5.486	5.491	5.488	5.490	5.482	5.482	5.479	5.478	5.478	5.480	5.476	5.476	5.468	5.473	5.465	5.465	5.466	5.463
S9	5.477	5.473	5.476	5.471	5.473	5.470	5.472	5.462	5.461	5.464	5.459	5.462	5.460	5.460	5.454	5.457	5.447	5.447	5.443
S10	5.494	5.476	5.475	5.478	5.478	5.473	5.472	5.466	5.473	5.471	5.469	5.459	5.465	5.458	5.455	5.453	5.454	5.457	5.448
S11	5.493	5.487	5.487	5.478	5.487	5.481	5.475	5.483	5.470	5.475	5.472	5.469	5.472	5.463	5.461	5.468	5.463	5.462	5.461
S12	5.502	5.479	5.479	5.479	5.471	5.476	5.472	5.465	5.473	5.464	5.459	5.464	5.463	5.464	5.461	5.453	5.457	5.448	5.449
S13	5.485	5.476	5.475	5.471	5.472	5.470	5.472	5.464	5.468	5.460	5.461	5.464	5.455	5.453	5.458	5.458	5.452	5.452	5.450
S14	5.487	5.485	5.486	5.482	5.481	5.482	5.482	5.485	5.484	5.479	5.473	5.471	5.475	5.477	5.469	5.465	5.467	5.459	5.465
S15	5.481	5.445	5.448	5.446	5.437	5.437	5.433	5.433	5.441	5.430	5.432	5.430	5.433	5.422	5.429	5.421	5.425	5.419	5.414
S16	5.489	5.480	5.474	5.470	5.471	5.471	5.462	5.462	5.464	5.459	5.461	5.464	5.462	5.461	5.448	5.448	5.454	5.444	5.448
S17	5.496	5.479	5.477	5.477	5.473	5.473	5.475	5.476	5.465	5.472	5.464	5.464	5.461	5.460	5.463	5.463	5.450	5.450	5.454
S18	5.488	5.484	5.487	5.473	5.473	5.480	5.477	5.470	5.477	5.470	5.471	5.473	5.467	5.459	5.458	5.464	5.457	5.459	5.450
S19	5.452	5.484	5.477	5.480	5.475	5.468	5.471	5.468	5.468	5.464	5.470	5.459	5.459	5.459	5.452	5.462	5.458	5.455	5.452
S20	5.482	5.483	5.481	5.483	5.483	5.475	5.475	5.470	5.476	5.473	5.466	5.472	5.459	5.460	5.458	5.456	5.462	5.452	5.455
S21	5.492	5.482	5.486	5.476	5.473	5.468	5.468	5.469	5.467	5.467	5.471	5.471	5.461	5.467	5.461	5.460	5.454	5.457	5.449
S22	5.478	5.481	5.478	5.482	5.475	5.478	5.470	5.472	5.471	5.470	5.471	5.469	5.469	5.463	5.464	5.459	5.459	5.459	5.452
S23	5.474	5.480	5.477	5.471	5.471	5.475	5.473	5.467	5.474	5.465	5.468	5.468	5.457	5.460	5.462	5.462	5.449	5.456	5.454
S24	5.467	5.485	5.481	5.479	5.483	5.479	5.475	5.476	5.471	5.476	5.473	5.467	5.461	5.469	5.462	5.465	5.459	5.459	5.456
S25	5.472	5.482	5.478	5.476	5.482	5.473	5.475	5.478	5.476	5.469	5.464	5.470	5.457	5.461	5.463	5.454	5.457	5.454	5.460
Ave.	5.481	5.479	5.478	5.476	5.475	5.473	5.471	5.470	5.469	5.467	5.466	5.464	5.462	5.460	5.459	5.457	5.454	5.453	5.451
Med.	5.482	5.482	5.479	5.478	5.476	5.474	5.472	5.470	5.471	5.469	5.469	5.465	5.461	5.461	5.461	5.460	5.457	5.456	5.452
St dev	0.0128	0.0117	0.0112	0.0115	0.0122	0.0117	0.0112	0.0126	0.0113	0.0115	0.0112	0.0114	0.0109	0.0127	0.0112	0.0117	0.0116	0.0121	0.0122
Min.	5.445	5.441	5.441	5.437	5.437	5.437	5.433	5.433	5.432	5.430	5.432	5.430	5.432	5.422	5.428	5.421	5.415	5.418	5.414
Max.	5.502	5.490	5.494	5.490	5.490	5.487	5.485	5.490	5.484	5.481	5.480	5.477	5.476	5.477	5.478	5.474	5.467	5.474	5.467

3.5 Data Set 1, 55°C, 180mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	12000hrs	18000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S1	0.2583	0.5272	2790	0.0001	0.0003	0.0004	0.0006	0.0008	0.0011	0.0013	0.0014	0.0017	0.0018	0.0020	0.0021	0.0024	0.0026	0.0028	0.0029	0.0031	0.0032
S2	0.2579	0.5270	2799	0.0001	0.0002	0.0003	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0019	0.0020	0.0022	0.0024	0.0027	0.0029	0.0030	0.0031	0.0032
S3	0.2583	0.5270	2791	0.0001	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0020	0.0021	0.0024	0.0026	0.0028	0.0029	0.0030	0.0031
S4	0.2582	0.5274	2792	0.0001	0.0002	0.0003	0.0007	0.0009	0.0010	0.0012	0.0014	0.0016	0.0019	0.0020	0.0022	0.0024	0.0027	0.0029	0.0030	0.0031	0.0033
S5	0.2585	0.5277	2784	0.0001	0.0002	0.0003	0.0006	0.0009	0.0011	0.0013	0.0014	0.0016	0.0019	0.0022	0.0024	0.0026	0.0029	0.0031	0.0032	0.0033	0.0034
S6	0.2580	0.5268	2798	0.0001	0.0002	0.0004	0.0006	0.0008	0.0009	0.0011	0.0013	0.0015	0.0018	0.0020	0.0023	0.0025	0.0028	0.0030	0.0031	0.0032	0.0033
S7	0.2589	0.5282	2773	0.0001	0.0002	0.0003	0.0005	0.0007	0.0008	0.0010	0.0012	0.0014	0.0015	0.0017	0.0018	0.0021	0.0024	0.0025	0.0026	0.0028	0.0029
S8	0.2583	0.5284	2785	0.0002	0.0003	0.0004	0.0006	0.0008	0.0009	0.0011	0.0012	0.0014	0.0016	0.0017	0.0019	0.0022	0.0024	0.0026	0.0027	0.0029	0.0030
S9	0.2585	0.5286	2778	0.0001	0.0003	0.0004	0.0007	0.0010	0.0012	0.0014	0.0016	0.0018	0.0020	0.0022	0.0023	0.0025	0.0028	0.0030	0.0031	0.0032	0.0033
S10	0.2580	0.5269	2798	0.0001	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0014	0.0016	0.0017	0.0019	0.0020	0.0023	0.0026	0.0028	0.0029	0.0030	0.0031
S11	0.2577	0.5292	2794	0.0001	0.0002	0.0003	0.0006	0.0007	0.0008	0.0010	0.0012	0.0014	0.0017	0.0018	0.0021	0.0023	0.0026	0.0028	0.0029	0.0030	0.0031
S12	0.2573	0.5289	2804	0.0002	0.0003	0.0004	0.0005	0.0008	0.0010	0.0012	0.0014	0.0016	0.0017	0.0019	0.0021	0.0024	0.0026	0.0028	0.0029	0.0030	0.0031
S13	0.2581	0.5305	2779	0.0001	0.0002	0.0003	0.0005	0.0009	0.0010	0.0012	0.0015	0.0017	0.0018	0.0020	0.0021	0.0024	0.0026	0.0028	0.0029	0.0030	0.0032
S14	0.2577	0.5304	2789	0.0001	0.0003	0.0004	0.0008	0.0010	0.0011	0.0013	0.0014	0.0016	0.0019	0.0021	0.0023	0.0025	0.0028	0.0030	0.0031	0.0032	0.0033
S15	0.2583	0.5301	2777	0.0001	0.0002	0.0003	0.0005	0.0008	0.0010	0.0012	0.0014	0.0016	0.0019	0.0022	0.0025	0.0028	0.0030	0.0032	0.0033	0.0034	0.0035
S16	0.2575	0.5286	2801	0.0002	0.0003	0.0004	0.0006	0.0009	0.0009	0.0012	0.0013	0.0015	0.0017	0.0020	0.0022	0.0024	0.0027	0.0029	0.0030	0.0031	0.0033
S17	0.2578	0.5297	2789	0.0001	0.0002	0.0003	0.0007	0.0009	0.0011	0.0014	0.0016	0.0018	0.0019	0.0021	0.0024	0.0026	0.0029	0.0030	0.0032	0.0033	0.0034
S18	0.2577	0.5294	2793	0.0001	0.0003	0.0004	0.0006	0.0008	0.0009	0.0011	0.0012	0.0014	0.0016	0.0018	0.0019	0.0022	0.0025	0.0026	0.0028	0.0029	0.0030
S19	0.2577	0.5289	2795	0.0002	0.0003	0.0004	0.0008	0.0010	0.0011	0.0013	0.0015	0.0017	0.0018	0.0021	0.0023	0.0026	0.0028	0.0030	0.0031	0.0032	0.0033
S20	0.2574	0.5288	2802	0.0001	0.0002	0.0003	0.0007	0.0011	0.0012	0.0014	0.0016	0.0018	0.0020	0.0023	0.0026	0.0028	0.0031	0.0033	0.0034	0.0035	0.0036
S21	0.2576	0.5291	2795	0.0002	0.0003	0.0004	0.0007	0.0008	0.0011	0.0013	0.0015	0.0017	0.0018	0.0020	0.0021	0.0024	0.0027	0.0028	0.0030	0.0031	0.0032
S22	0.2572	0.5276	2811	0.0001	0.0002	0.0003	0.0007	0.0009	0.0010	0.0013	0.0015	0.0017	0.0020	0.0022	0.0025	0.0028	0.0031	0.0033	0.0034	0.0035	0.0036
S23	0.2572	0.5279	2811	0.0001	0.0002	0.0004	0.0006	0.0008	0.0009	0.0011	0.0013	0.0015	0.0018	0.0019	0.0021	0.0023	0.0026	0.0027	0.0029	0.0030	0.0032
S24	0.2578	0.5286	2795	0.0001	0.0002	0.0004	0.0007	0.0010	0.0011	0.0013	0.0015	0.0017	0.0020	0.0021	0.0023	0.0026	0.0028	0.0030	0.0031	0.0032	0.0034
S25	0.2573	0.5289	2803	0.0001	0.0003	0.0004	0.0006	0.0008	0.0010	0.0012	0.0015	0.0017	0.0018	0.0020	0.0022	0.0024	0.0027	0.0028	0.0030	0.0031	0.0032
Ave.	0.2579	0.5285	2793	0.0001	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0014	0.0016	0.0018	0.0020	0.0022	0.0025	0.0027	0.0029	0.0030	0.0031	0.0032
Med.	0.2578	0.5286	2794	0.0001	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0014	0.0016	0.0018	0.0020	0.0022	0.0024	0.0027	0.0029	0.0030	0.0031	0.0032
St dev	0.0005	0.0011	9.9603	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2572	0.5268	2773	0.0001	0.0002	0.0003	0.0005	0.0007	0.0008	0.0010	0.0012	0.0014	0.0015	0.0017	0.0018	0.0021	0.0024	0.0025	0.0026	0.0028	0.0029
Max.	0.2589	0.5305	2811	0.0002	0.0003	0.0004	0.0008	0.0011	0.0012	0.0014	0.0016	0.0018	0.0020	0.0023	0.0026	0.0028	0.0031	0.0033	0.0034	0.0035	0.0036

3.6 Data Set 2, 85°C, 180mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S26	169.9	100.13	100.01	99.88	99.76	99.61	99.43	99.26	99.16	99.06	98.96	98.86	98.77	98.65	98.58	98.46	98.40	98.30	98.21
S27	170.1	100.15	99.99	99.87	99.69	99.57	99.44	99.27	99.16	99.05	98.95	98.85	98.76	98.69	98.59	98.52	98.42	98.32	98.27
S28	169.7	100.08	99.92	99.77	99.56	99.38	99.18	99.07	98.97	98.80	98.70	98.60	98.50	98.40	98.28	98.21	98.16	98.07	98.02
S29	169.8	100.09	99.96	99.81	99.63	99.45	99.28	99.17	99.07	98.95	98.85	98.75	98.65	98.55	98.43	98.33	98.28	98.24	98.19
S30	170.5	100.12	99.96	99.80	99.68	99.50	99.33	99.22	99.11	98.94	98.85	98.74	98.64	98.52	98.45	98.38	98.34	98.29	98.20
S31	169.4	100.14	100.01	99.85	99.73	99.61	99.48	99.31	99.20	99.03	98.93	98.83	98.73	98.66	98.59	98.52	98.42	98.33	98.23
S32	170.3	100.15	100.03	99.90	99.75	99.58	99.37	99.20	99.05	98.92	98.83	98.73	98.63	98.51	98.45	98.35	98.27	98.22	98.18
S33	169.5	100.13	99.97	99.81	99.64	99.46	99.25	99.10	98.96	98.85	98.75	98.65	98.55	98.43	98.32	98.25	98.23	98.13	98.03
S34	171.2	100.11	99.98	99.86	99.73	99.53	99.40	99.23	99.06	98.92	98.81	98.71	98.61	98.51	98.39	98.29	98.19	98.13	98.09
S35	170.8	100.10	99.94	99.81	99.64	99.46	99.26	99.14	98.97	98.87	98.78	98.68	98.58	98.48	98.38	98.31	98.22	98.17	98.07
S36	170.0	100.17	100.04	99.92	99.79	99.62	99.50	99.32	99.15	99.05	98.95	98.85	98.75	98.65	98.55	98.48	98.44	98.39	98.29
S37	170.1	100.12	99.97	99.84	99.63	99.51	99.30	99.20	99.09	98.98	98.88	98.78	98.68	98.61	98.51	98.44	98.39	98.29	98.25
S38	170.6	100.13	99.97	99.81	99.64	99.43	99.31	99.20	99.08	98.98	98.89	98.78	98.68	98.58	98.48	98.41	98.32	98.28	98.18
S39	169.7	100.15	100.02	99.90	99.72	99.55	99.42	99.31	99.21	99.10	99.00	98.89	98.80	98.70	98.63	98.53	98.48	98.44	98.35
S40	170.4	100.17	100.04	99.89	99.71	99.54	99.41	99.31	99.20	99.03	98.93	98.84	98.74	98.62	98.52	98.45	98.36	98.27	98.18
S41	170.2	100.16	100.00	99.87	99.67	99.49	99.28	99.11	99.01	98.84	98.74	98.64	98.54	98.44	98.37	98.25	98.15	98.05	98.01
S42	169.9	100.12	100.00	99.87	99.70	99.57	99.40	99.30	99.18	99.07	98.97	98.87	98.77	98.70	98.64	98.52	98.43	98.38	98.33
S43	170.0	100.08	99.92	99.77	99.59	99.38	99.26	99.09	98.92	98.75	98.64	98.54	98.44	98.37	98.27	98.16	98.06	97.97	97.92
S44	170.7	100.15	100.00	99.84	99.72	99.59	99.42	99.25	99.14	99.04	98.94	98.84	98.75	98.68	98.56	98.46	98.41	98.31	98.27
S45	169.6	100.10	99.98	99.82	99.65	99.44	99.26	99.15	98.98	98.81	98.70	98.61	98.50	98.43	98.33	98.26	98.17	98.08	97.98
S46	171.9	100.09	99.96	99.84	99.66	99.49	99.28	99.17	99.07	98.96	98.87	98.77	98.67	98.55	98.48	98.38	98.29	98.19	98.10
S47	170.2	100.08	99.96	99.83	99.63	99.45	99.24	99.11	99.01	98.91	98.81	98.71	98.61	98.51	98.41	98.32	98.25	98.20	98.10
S48	169.9	100.13	100.01	99.88	99.71	99.50	99.32	99.21	99.10	99.00	98.89	98.79	98.69	98.59	98.49	98.37	98.32	98.28	98.18
S49	169.6	100.08	99.92	99.80	99.62	99.50	99.29	99.12	99.02	98.91	98.81	98.72	98.62	98.55	98.48	98.38	98.29	98.19	98.09
S50	170.8	100.07	99.92	99.76	99.55	99.43	99.25	99.08	98.91	98.80	98.70	98.60	98.51	98.39	98.27	98.18	98.09	98.00	97.95
Ave.	170.2	100.12	99.98	99.84	99.67	99.51	99.33	99.20	99.07	98.94	98.85	98.75	98.65	98.55	98.46	98.37	98.30	98.22	98.15
Med.	170.1	100.12	99.98	99.84	99.67	99.50	99.31	99.20	99.07	98.95	98.85	98.75	98.65	98.55	98.48	98.38	98.29	98.24	98.18
St dev	0.5787	0.0303	0.0373	0.0445	0.0616	0.0688	0.0858	0.0808	0.0907	0.0987	0.0992	0.0994	0.1001	0.1032	0.1113	0.1113	0.1159	0.1234	0.1192
Min.	169.4	100.07	99.92	99.76	99.55	99.38	99.18	99.07	98.91	98.75	98.64	98.54	98.44	98.37	98.27	98.16	98.06	97.97	97.92
Max.	171.9	100.17	100.04	99.92	99.79	99.62	99.50	99.32	99.21	99.10	99.00	98.89	98.80	98.70	98.64	98.53	98.48	98.44	98.35

3.7 Data Set 2, 85°C, 180mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S26	2.671	100.13	100.03	99.87	99.73	99.57	99.42	99.26	99.15	98.99	98.87	98.78	98.65	98.58	98.50	98.43	98.38	98.30	98.20
S27	2.671	100.07	99.96	99.81	99.65	99.49	99.34	99.22	99.06	98.94	98.86	98.74	98.61	98.53	98.45	98.38	98.33	98.23	98.13
S28	2.671	100.14	100.04	99.94	99.78	99.64	99.44	99.32	99.17	99.01	98.88	98.74	98.61	98.52	98.44	98.37	98.30	98.22	98.12
S29	2.670	100.08	99.98	99.82	99.62	99.43	99.28	99.13	98.98	98.82	98.69	98.60	98.52	98.45	98.34	98.27	98.19	98.14	98.09
S30	2.671	100.11	100.01	99.91	99.76	99.57	99.37	99.22	99.06	98.91	98.78	98.70	98.62	98.54	98.47	98.40	98.32	98.24	98.14
S31	2.671	100.10	100.00	99.90	99.70	99.50	99.35	99.23	99.07	98.96	98.87	98.74	98.61	98.53	98.45	98.38	98.30	98.25	98.21
S32	2.672	100.09	99.93	99.82	99.67	99.47	99.33	99.21	99.05	98.90	98.78	98.64	98.52	98.44	98.35	98.24	98.19	98.14	98.04
S33	2.671	100.10	99.94	99.78	99.63	99.48	99.33	99.17	99.01	98.90	98.81	98.69	98.57	98.48	98.37	98.30	98.22	98.12	98.07
S34	2.684	100.05	99.89	99.73	99.59	99.39	99.24	99.12	98.97	98.81	98.68	98.54	98.46	98.34	98.26	98.19	98.11	98.07	97.99
S35	2.685	100.12	99.96	99.80	99.60	99.45	99.29	99.13	98.98	98.86	98.74	98.62	98.49	98.43	98.31	98.24	98.19	98.14	98.04
S36	2.680	100.08	99.93	99.77	99.57	99.41	99.26	99.10	98.95	98.83	98.71	98.58	98.45	98.37	98.29	98.22	98.12	98.07	98.02
S37	2.681	100.07	99.97	99.81	99.67	99.53	99.33	99.21	99.06	98.90	98.82	98.69	98.61	98.49	98.43	98.31	98.23	98.13	98.03
S38	2.681	100.09	99.99	99.89	99.73	99.57	99.38	99.26	99.14	98.99	98.90	98.77	98.63	98.55	98.47	98.40	98.30	98.25	98.15
S39	2.681	100.14	100.04	99.88	99.69	99.54	99.40	99.24	99.09	98.93	98.80	98.67	98.55	98.47	98.40	98.33	98.23	98.15	98.07
S40	2.681	100.13	100.03	99.87	99.72	99.52	99.32	99.16	99.01	98.89	98.76	98.62	98.50	98.38	98.30	98.22	98.14	98.04	97.94
S41	2.680	100.12	100.02	99.92	99.72	99.56	99.41	99.25	99.09	98.93	98.81	98.69	98.55	98.47	98.40	98.32	98.24	98.16	98.09
S42	2.681	100.09	99.99	99.88	99.69	99.49	99.33	99.17	99.06	98.90	98.82	98.69	98.61	98.53	98.45	98.38	98.33	98.23	98.13
S43	2.681	100.09	99.93	99.83	99.69	99.54	99.35	99.23	99.11	98.95	98.87	98.79	98.70	98.64	98.55	98.47	98.37	98.27	98.22
S44	2.681	100.11	100.01	99.91	99.71	99.57	99.42	99.31	99.19	99.07	98.94	98.86	98.72	98.65	98.59	98.50	98.40	98.30	98.20
S45	2.681	100.06	99.91	99.80	99.65	99.45	99.29	99.13	98.98	98.82	98.74	98.66	98.52	98.45	98.37	98.30	98.23	98.15	98.04
S46	2.674	100.06	99.96	99.85	99.70	99.54	99.40	99.24	99.13	98.97	98.85	98.76	98.68	98.60	98.52	98.40	98.30	98.25	98.15
S47	2.647	100.06	99.90	99.79	99.64	99.50	99.35	99.24	99.08	98.97	98.83	98.70	98.61	98.50	98.38	98.30	98.22	98.14	98.09
S48	2.647	100.04	99.94	99.78	99.62	99.48	99.34	99.18	99.03	98.91	98.79	98.65	98.53	98.45	98.37	98.28	98.18	98.10	98.06
S49	2.648	100.05	99.95	99.79	99.65	99.45	99.31	99.15	99.00	98.88	98.74	98.66	98.52	98.41	98.34	98.27	98.19	98.15	98.04
S50	2.675	100.13	99.97	99.87	99.67	99.47	99.33	99.21	99.06	98.94	98.80	98.67	98.58	98.47	98.39	98.32	98.22	98.14	98.09
Ave.	2.673	100.09	99.97	99.84	99.67	99.50	99.34	99.20	99.06	98.92	98.81	98.69	98.58	98.49	98.41	98.33	98.25	98.18	98.09
Med.	2.675	100.09	99.97	99.83	99.67	99.50	99.34	99.21	99.06	98.91	98.81	98.69	98.58	98.48	98.40	98.32	98.23	98.15	98.09
St dev	0.0110	0.0311	0.0448	0.0540	0.0523	0.0588	0.0516	0.0572	0.0656	0.0631	0.0666	0.0716	0.0715	0.0783	0.0824	0.0810	0.0802	0.0740	0.0711
Min.	2.647	100.04	99.89	99.73	99.57	99.39	99.24	99.10	98.95	98.81	98.68	98.54	98.45	98.34	98.26	98.19	98.11	98.04	97.94
Max.	2.685	100.14	100.04	99.94	99.78	99.64	99.44	99.32	99.19	99.07	98.94	98.86	98.72	98.65	98.59	98.50	98.40	98.30	98.22

3.8 Data Set 2, 85°C, 180mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S26	0.1837	100.13	100.00	99.86	99.70	99.55	99.39	99.25	99.09	98.94	98.86	98.77	98.61	98.54	98.47	98.35	98.28	98.21	98.15
S27	0.1837	100.09	99.94	99.80	99.61	99.41	99.22	99.09	98.96	98.83	98.74	98.66	98.57	98.50	98.38	98.31	98.24	98.18	98.12
S28	0.1836	100.11	99.96	99.81	99.65	99.50	99.34	99.19	99.05	98.90	98.75	98.66	98.57	98.50	98.43	98.31	98.24	98.19	98.12
S29	0.1837	100.09	99.93	99.78	99.63	99.43	99.24	99.09	98.94	98.81	98.72	98.64	98.55	98.48	98.41	98.29	98.23	98.18	98.11
S30	0.1834	100.15	100.00	99.86	99.70	99.55	99.35	99.21	99.06	98.91	98.76	98.60	98.44	98.37	98.30	98.23	98.17	98.10	98.03
S31	0.1835	100.17	100.01	99.86	99.67	99.51	99.36	99.21	99.06	98.92	98.83	98.68	98.59	98.52	98.40	98.28	98.22	98.15	98.08
S32	0.1838	100.13	99.98	99.84	99.69	99.50	99.34	99.19	99.05	98.91	98.76	98.67	98.58	98.51	98.39	98.27	98.20	98.14	98.07
S33	0.1836	100.11	99.97	99.82	99.62	99.43	99.23	99.08	98.93	98.78	98.69	98.53	98.44	98.32	98.25	98.13	98.06	97.99	97.93
S34	0.1845	100.16	100.01	99.87	99.72	99.52	99.37	99.23	99.08	98.93	98.77	98.61	98.53	98.46	98.38	98.31	98.26	98.19	98.12
S35	0.1845	100.16	100.02	99.87	99.68	99.52	99.37	99.21	99.08	98.93	98.84	98.76	98.68	98.56	98.44	98.37	98.30	98.23	98.17
S36	0.1825	100.15	100.00	99.85	99.70	99.54	99.39	99.25	99.11	98.95	98.86	98.77	98.62	98.55	98.48	98.41	98.35	98.28	98.21
S37	0.1825	100.09	99.94	99.80	99.61	99.42	99.23	99.09	98.96	98.82	98.74	98.58	98.43	98.35	98.23	98.11	98.05	97.98	97.93
S38	0.1826	100.15	100.01	99.88	99.69	99.49	99.29	99.16	99.01	98.86	98.78	98.62	98.54	98.47	98.40	98.33	98.26	98.19	98.14
S39	0.1826	100.09	99.94	99.78	99.60	99.44	99.29	99.13	99.00	98.85	98.76	98.61	98.45	98.38	98.31	98.24	98.18	98.12	98.06
S40	0.1826	100.09	99.93	99.78	99.63	99.43	99.28	99.13	98.98	98.83	98.74	98.58	98.43	98.35	98.23	98.16	98.11	98.04	97.99
S41	0.1827	100.16	100.01	99.85	99.66	99.46	99.26	99.13	99.00	98.85	98.76	98.67	98.58	98.51	98.44	98.37	98.30	98.23	98.17
S42	0.1826	100.14	99.99	99.84	99.65	99.46	99.27	99.11	98.98	98.85	98.77	98.68	98.53	98.45	98.33	98.26	98.20	98.14	98.09
S43	0.1826	100.08	99.94	99.79	99.60	99.40	99.24	99.11	98.96	98.83	98.74	98.66	98.57	98.50	98.38	98.26	98.19	98.13	98.07
S44	0.1827	100.12	99.98	99.83	99.68	99.52	99.37	99.24	99.10	98.97	98.88	98.72	98.63	98.56	98.49	98.42	98.35	98.29	98.24
S45	0.1826	100.13	99.99	99.84	99.69	99.53	99.33	99.20	99.07	98.92	98.77	98.61	98.53	98.45	98.38	98.31	98.26	98.19	98.13
S46	0.1781	100.16	100.02	99.87	99.71	99.53	99.33	99.18	99.05	98.90	98.81	98.72	98.57	98.45	98.37	98.25	98.19	98.12	98.06
S47	0.1764	100.12	99.97	99.81	99.62	99.42	99.27	99.11	98.97	98.82	98.73	98.57	98.48	98.36	98.29	98.17	98.12	98.05	97.98
S48	0.1764	100.13	99.98	99.84	99.64	99.49	99.30	99.15	99.00	98.85	98.77	98.61	98.53	98.46	98.39	98.32	98.27	98.20	98.13
S49	0.1764	100.13	100.00	99.85	99.66	99.46	99.26	99.13	99.00	98.87	98.71	98.63	98.54	98.47	98.40	98.33	98.26	98.21	98.15
S50	0.1781	100.13	99.98	99.83	99.67	99.48	99.32	99.19	99.06	98.91	98.82	98.73	98.64	98.57	98.49	98.42	98.36	98.29	98.23
Ave.	0.1820	100.13	99.98	99.83	99.66	99.48	99.31	99.16	99.02	98.88	98.77	98.65	98.54	98.47	98.38	98.29	98.23	98.16	98.10
Med.	0.1826	100.13	99.98	99.84	99.66	99.49	99.30	99.16	99.01	98.87	98.76	98.66	98.55	98.47	98.39	98.31	98.24	98.18	98.12
St dev	0.0026	0.0277	0.0294	0.0303	0.0373	0.0470	0.0531	0.0548	0.0541	0.0516	0.0503	0.0648	0.0692	0.0722	0.0753	0.0835	0.0827	0.0831	0.0828
Min.	0.1764	100.08	99.93	99.78	99.60	99.40	99.22	99.08	98.93	98.78	98.69	98.53	98.43	98.32	98.23	98.11	98.05	97.98	97.93
Max.	0.1845	100.17	100.02	99.88	99.72	99.55	99.39	99.25	99.11	98.97	98.88	98.77	98.68	98.57	98.49	98.42	98.36	98.29	98.24

3.9 Data Set 2, 85°C, 180mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S26	5.495	5.488	5.490	5.489	5.490	5.492	5.479	5.484	5.482	5.479	5.482	5.479	5.467	5.475	5.467	5.468	5.462	5.467	5.460
S27	5.485	5.479	5.479	5.474	5.473	5.474	5.475	5.469	5.470	5.472	5.468	5.468	5.464	5.461	5.464	5.460	5.457	5.455	5.450
S28	5.491	5.484	5.483	5.486	5.488	5.479	5.481	5.480	5.476	5.467	5.478	5.467	5.471	5.463	5.463	5.464	5.461	5.464	5.451
S29	5.491	5.489	5.483	5.486	5.483	5.478	5.481	5.480	5.474	5.476	5.475	5.474	5.471	5.464	5.463	5.468	5.463	5.459	5.454
S30	5.489	5.492	5.482	5.484	5.485	5.478	5.478	5.478	5.471	5.476	5.471	5.466	5.465	5.466	5.467	5.460	5.460	5.456	5.454
S31	5.503	5.495	5.499	5.498	5.495	5.491	5.487	5.487	5.484	5.490	5.479	5.482	5.483	5.475	5.474	5.474	5.476	5.473	5.466
S32	5.454	5.450	5.447	5.449	5.443	5.441	5.438	5.443	5.437	5.439	5.430	5.438	5.426	5.430	5.427	5.422	5.426	5.424	5.415
S33	5.498	5.497	5.491	5.486	5.494	5.486	5.488	5.481	5.483	5.475	5.480	5.474	5.474	5.474	5.466	5.477	5.469	5.465	5.468
S34	5.483	5.483	5.482	5.477	5.472	5.471	5.477	5.473	5.465	5.467	5.459	5.459	5.460	5.460	5.461	5.451	5.456	5.451	5.453
S35	5.486	5.484	5.478	5.482	5.480	5.474	5.476	5.470	5.468	5.469	5.472	5.463	5.466	5.463	5.458	5.463	5.457	5.453	5.451
S36	5.494	5.492	5.489	5.481	5.482	5.486	5.478	5.479	5.479	5.481	5.477	5.477	5.474	5.471	5.465	5.466	5.465	5.466	5.458
S37	5.486	5.480	5.478	5.474	5.473	5.475	5.470	5.470	5.476	5.472	5.465	5.471	5.462	5.458	5.454	5.454	5.459	5.453	5.453
S38	5.483	5.484	5.483	5.477	5.470	5.472	5.472	5.468	5.470	5.466	5.460	5.460	5.461	5.459	5.455	5.452	5.453	5.448	5.453
S39	5.498	5.501	5.491	5.490	5.490	5.490	5.492	5.483	5.483	5.485	5.485	5.475	5.478	5.476	5.469	5.471	5.465	5.468	5.461
S40	5.454	5.449	5.447	5.450	5.441	5.451	5.438	5.448	5.440	5.438	5.437	5.440	5.426	5.431	5.425	5.426	5.419	5.425	5.424
S41	5.483	5.476	5.473	5.478	5.479	5.471	5.468	5.470	5.468	5.470	5.459	5.469	5.463	5.460	5.458	5.454	5.455	5.454	5.444
S42	5.489	5.485	5.482	5.476	5.484	5.486	5.473	5.479	5.470	5.465	5.472	5.465	5.465	5.465	5.461	5.460	5.461	5.458	5.450
S43	5.490	5.480	5.489	5.487	5.477	5.477	5.480	5.483	5.475	5.476	5.472	5.474	5.467	5.470	5.462	5.458	5.455	5.457	5.455
S44	5.487	5.482	5.482	5.476	5.475	5.474	5.472	5.471	5.474	5.472	5.463	5.470	5.465	5.463	5.458	5.466	5.456	5.454	5.451
S45	5.502	5.481	5.484	5.479	5.478	5.480	5.476	5.481	5.476	5.472	5.470	5.472	5.468	5.468	5.459	5.470	5.458	5.458	5.453
S46	5.476	5.482	5.484	5.484	5.481	5.478	5.479	5.478	5.474	5.476	5.466	5.471	5.469	5.466	5.463	5.462	5.460	5.461	5.450
S47	5.476	5.483	5.483	5.482	5.478	5.478	5.474	5.475	5.475	5.477	5.473	5.466	5.470	5.462	5.469	5.458	5.461	5.462	5.458
S48	5.442	5.480	5.480	5.474	5.484	5.479	5.481	5.470	5.472	5.469	5.474	5.463	5.464	5.467	5.459	5.455	5.457	5.460	5.448
S49	5.479	5.486	5.487	5.487	5.483	5.479	5.480	5.480	5.476	5.467	5.473	5.472	5.471	5.467	5.468	5.468	5.462	5.460	5.455
S50	5.491	5.479	5.482	5.483	5.476	5.481	5.483	5.482	5.479	5.473	5.472	5.472	5.469	5.461	5.468	5.460	5.462	5.454	5.459
Ave.	5.484	5.483	5.481	5.480	5.478	5.477	5.475	5.474	5.472	5.471	5.468	5.467	5.465	5.463	5.460	5.459	5.457	5.456	5.452
Med.	5.487	5.483	5.483	5.482	5.480	5.478	5.478	5.478	5.474	5.472	5.472	5.470	5.467	5.464	5.463	5.460	5.460	5.458	5.453
St dev	0.0148	0.0116	0.0116	0.0107	0.0127	0.0110	0.0124	0.0104	0.0113	0.0114	0.0126	0.0102	0.0128	0.0111	0.0112	0.0126	0.0116	0.0110	0.0111
Min.	5.442	5.449	5.447	5.449	5.441	5.441	5.438	5.443	5.437	5.438	5.430	5.438	5.426	5.430	5.425	5.422	5.419	5.424	5.415
Max.	5.503	5.501	5.499	5.498	5.495	5.492	5.492	5.487	5.484	5.490	5.485	5.482	5.483	5.476	5.474	5.477	5.476	5.473	5.468

3.10 Data Set 2, 85°C, 180mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S26	0.2597	0.5248	2770	0.0002	0.0004	0.0006	0.0009	0.0011	0.0014	0.0015	0.0018	0.0021	0.0023	0.0026	0.0028	0.0030	0.0032	0.0035	0.0037	0.0040	0.0041
S27	0.2594	0.5246	2777	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0013	0.0014	0.0015	0.0017	0.0019	0.0021	0.0023	0.0024	0.0027	0.0030	0.0033	0.0034
S28	0.2597	0.5251	2769	0.0003	0.0005	0.0007	0.0009	0.0011	0.0012	0.0014	0.0015	0.0018	0.0020	0.0021	0.0024	0.0026	0.0028	0.0032	0.0034	0.0036	0.0037
S29	0.2596	0.5244	2775	0.0003	0.0005	0.0007	0.0009	0.0012	0.0014	0.0016	0.0017	0.0018	0.0020	0.0021	0.0023	0.0025	0.0027	0.0029	0.0032	0.0033	0.0034
S30	0.2598	0.5261	2762	0.0002	0.0004	0.0006	0.0009	0.0011	0.0014	0.0017	0.0018	0.0020	0.0023	0.0024	0.0026	0.0027	0.0029	0.0032	0.0034	0.0035	0.0036
S31	0.2594	0.5245	2777	0.0002	0.0004	0.0007	0.0009	0.0010	0.0013	0.0015	0.0018	0.0021	0.0022	0.0024	0.0027	0.0029	0.0031	0.0033	0.0035	0.0038	0.0039
S32	0.2597	0.5246	2771	0.0002	0.0003	0.0005	0.0007	0.0009	0.0010	0.0013	0.0016	0.0017	0.0019	0.0022	0.0023	0.0025	0.0027	0.0030	0.0033	0.0035	0.0036
S33	0.2599	0.5253	2763	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0012	0.0013	0.0016	0.0018	0.0021	0.0023	0.0025	0.0026	0.0029	0.0032	0.0034	0.0035
S34	0.2603	0.5258	2752	0.0002	0.0004	0.0006	0.0008	0.0010	0.0011	0.0014	0.0017	0.0020	0.0021	0.0023	0.0026	0.0028	0.0030	0.0033	0.0035	0.0036	0.0037
S35	0.2601	0.5263	2755	0.0003	0.0004	0.0006	0.0008	0.0009	0.0011	0.0012	0.0014	0.0015	0.0017	0.0018	0.0020	0.0022	0.0024	0.0027	0.0030	0.0032	0.0032
S36	0.2598	0.5229	2778	0.0002	0.0003	0.0005	0.0007	0.0009	0.0012	0.0014	0.0017	0.0020	0.0021	0.0023	0.0025	0.0027	0.0029	0.0031	0.0034	0.0037	0.0038
S37	0.2601	0.5243	2763	0.0002	0.0003	0.0006	0.0009	0.0011	0.0012	0.0015	0.0017	0.0020	0.0021	0.0024	0.0026	0.0028	0.0029	0.0032	0.0035	0.0037	0.0038
S38	0.2604	0.5238	2760	0.0003	0.0005	0.0007	0.0009	0.0011	0.0013	0.0016	0.0018	0.0021	0.0023	0.0024	0.0027	0.0029	0.0031	0.0034	0.0037	0.0039	0.0039
S39	0.2599	0.5233	2772	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0014	0.0015	0.0018	0.0019	0.0021	0.0022	0.0024	0.0026	0.0028	0.0031	0.0033	0.0034
S40	0.2598	0.5226	2778	0.0002	0.0004	0.0007	0.0010	0.0012	0.0014	0.0017	0.0019	0.0022	0.0023	0.0025	0.0026	0.0028	0.0030	0.0033	0.0035	0.0036	0.0038
S41	0.2595	0.5225	2785	0.0002	0.0003	0.0006	0.0008	0.0011	0.0012	0.0014	0.0017	0.0018	0.0019	0.0021	0.0023	0.0025	0.0027	0.0030	0.0033	0.0035	0.0036
S42	0.2598	0.5231	2776	0.0003	0.0004	0.0007	0.0009	0.0011	0.0012	0.0015	0.0018	0.0020	0.0022	0.0024	0.0026	0.0027	0.0029	0.0032	0.0034	0.0036	0.0037
S43	0.2596	0.5223	2784	0.0002	0.0004	0.0006	0.0009	0.0011	0.0013	0.0016	0.0018	0.0020	0.0022	0.0025	0.0026	0.0028	0.0030	0.0033	0.0035	0.0037	0.0038
S44	0.2599	0.5241	2770	0.0003	0.0004	0.0007	0.0009	0.0012	0.0014	0.0017	0.0020	0.0021	0.0023	0.0024	0.0026	0.0028	0.0030	0.0033	0.0035	0.0037	0.0037
S45	0.2595	0.5225	2785	0.0003	0.0005	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0020	0.0022	0.0024	0.0025	0.0027	0.0029	0.0032	0.0034	0.0036	0.0036
S46	0.2588	0.5250	2788	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0015	0.0017	0.0019	0.0020	0.0022	0.0025	0.0027	0.0028	0.0031	0.0034	0.0036	0.0037
S47	0.2588	0.5249	2788	0.0002	0.0003	0.0006	0.0008	0.0009	0.0011	0.0014	0.0017	0.0019	0.0021	0.0023	0.0026	0.0028	0.0030	0.0033	0.0035	0.0036	0.0037
S48	0.2589	0.5235	2795	0.0002	0.0004	0.0006	0.0008	0.0010	0.0013	0.0016	0.0018	0.0019	0.0021	0.0024	0.0027	0.0029	0.0031	0.0034	0.0037	0.0039	0.0040
S49	0.2586	0.5232	2801	0.0003	0.0004	0.0006	0.0008	0.0011	0.0013	0.0016	0.0017	0.0020	0.0022	0.0023	0.0026	0.0028	0.0029	0.0032	0.0034	0.0036	0.0037
S50	0.2585	0.5234	2804	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0012	0.0014	0.0017	0.0020	0.0022	0.0023	0.0025	0.0027	0.0030	0.0032	0.0034	0.0035
Ave.	0.2596	0.5241	2776	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0015	0.0017	0.0019	0.0021	0.0023	0.0025	0.0027	0.0029	0.0031	0.0034	0.0036	0.0037
Med.	0.2597	0.5243	2776	0.0002	0.0004	0.0006	0.0008	0.0011	0.0012	0.0015	0.0017	0.0020	0.0021	0.0023	0.0026	0.0027	0.0029	0.0032	0.0034	0.0036	0.0037
St dev	0.0005	0.0012	13.3289	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2585	0.5223	2752	0.0002	0.0003	0.0005	0.0007	0.0009	0.0010	0.0012	0.0013	0.0015	0.0017	0.0018	0.0020	0.0022	0.0024	0.0027	0.0030	0.0032	0.0032
Max.	0.2604	0.5263	2804	0.0003	0.0005	0.0007	0.0010	0.0012	0.0014	0.0017	0.0020	0.0022	0.0023	0.0026	0.0028	0.0030	0.0032	0.0035	0.0037	0.0040	0.0041

3.11 Data Set 3, 105°C, 180mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S51	169.8	100.03	99.85	99.67	99.43	99.26	99.10	98.93	98.72	98.55	98.41	98.27	98.18	98.09	98.00	97.93	97.86	97.75	97.69
S52	169.6	100.09	99.91	99.73	99.51	99.33	99.17	99.04	98.83	98.65	98.50	98.36	98.24	98.15	98.05	97.97	97.92	97.81	97.75
S53	169.9	100.01	99.83	99.60	99.36	99.15	98.98	98.84	98.68	98.51	98.36	98.22	98.11	98.03	97.92	97.85	97.77	97.66	97.61
S54	169.6	100.01	99.83	99.65	99.41	99.23	99.06	98.89	98.69	98.52	98.38	98.24	98.15	98.05	97.96	97.89	97.84	97.76	97.70
S55	169.4	100.05	99.87	99.70	99.49	99.31	99.13	98.96	98.80	98.62	98.46	98.33	98.24	98.15	98.04	97.96	97.88	97.80	97.74
S56	170.2	100.07	99.85	99.62	99.41	99.21	99.03	98.90	98.70	98.52	98.37	98.24	98.12	98.04	97.95	97.87	97.80	97.72	97.65
S57	169.3	100.07	99.89	99.67	99.46	99.26	99.09	98.92	98.72	98.59	98.43	98.32	98.20	98.12	98.03	97.97	97.89	97.78	97.72
S58	170.1	100.04	99.81	99.63	99.39	99.19	99.01	98.88	98.71	98.54	98.41	98.27	98.17	98.09	98.00	97.94	97.86	97.74	97.71
S59	169.6	100.01	99.79	99.61	99.39	99.19	99.01	98.88	98.71	98.54	98.38	98.27	98.15	98.05	97.95	97.88	97.82	97.72	97.67
S60	172.3	100.09	99.92	99.69	99.48	99.32	99.15	99.02	98.81	98.68	98.52	98.39	98.27	98.17	98.07	98.01	97.92	97.82	97.78
S61	172.4	100.09	99.86	99.63	99.41	99.25	99.07	98.94	98.77	98.60	98.45	98.33	98.22	98.13	98.05	97.98	97.89	97.79	97.72
S62	172.0	100.01	99.78	99.61	99.36	99.16	98.96	98.78	98.62	98.45	98.30	98.16	98.07	97.98	97.89	97.80	97.75	97.67	97.62
S63	172.1	99.99	99.81	99.58	99.34	99.17	99.01	98.88	98.67	98.54	98.41	98.30	98.20	98.12	98.02	97.95	97.87	97.76	97.73
S64	172.7	100.03	99.85	99.67	99.45	99.27	99.10	98.92	98.76	98.58	98.42	98.29	98.20	98.10	98.00	97.94	97.86	97.76	97.69
S65	172.6	100.09	99.91	99.68	99.44	99.24	99.06	98.88	98.68	98.51	98.35	98.22	98.13	98.03	97.93	97.86	97.78	97.70	97.65
S66	172.9	100.05	99.82	99.59	99.39	99.18	98.98	98.81	98.60	98.43	98.29	98.18	98.07	97.97	97.87	97.81	97.73	97.63	97.56
S67	173.1	100.10	99.87	99.64	99.42	99.26	99.08	98.90	98.70	98.52	98.37	98.25	98.16	98.08	97.97	97.89	97.82	97.73	97.70
S68	172.3	100.03	99.85	99.62	99.42	99.22	99.05	98.88	98.67	98.54	98.41	98.29	98.18	98.09	98.01	97.93	97.86	97.74	97.66
S69	171.9	100.08	99.85	99.63	99.38	99.20	99.00	98.83	98.62	98.44	98.29	98.16	98.04	97.94	97.85	97.77	97.72	97.61	97.55
S70	169.4	100.00	99.78	99.60	99.39	99.19	98.99	98.81	98.61	98.48	98.35	98.21	98.09	97.99	97.90	97.83	97.78	97.67	97.61
S71	169.1	100.03	99.85	99.67	99.43	99.25	99.07	98.94	98.74	98.56	98.40	98.29	98.17	98.09	97.98	97.90	97.82	97.74	97.65
S72	169.4	100.00	99.82	99.65	99.44	99.28	99.11	98.94	98.74	98.56	98.40	98.29	98.20	98.11	98.02	97.95	97.87	97.79	97.71
S73	169.5	100.04	99.87	99.69	99.45	99.25	99.07	98.90	98.69	98.52	98.39	98.25	98.16	98.08	97.97	97.88	97.83	97.75	97.67
S74	170.1	100.06	99.88	99.66	99.41	99.21	99.05	98.87	98.67	98.49	98.34	98.22	98.10	98.01	97.93	97.84	97.77	97.65	97.60
S75	169.9	100.09	99.91	99.74	99.52	99.34	99.16	98.99	98.78	98.65	98.49	98.38	98.26	98.17	98.08	98.00	97.92	97.81	97.76
Ave.	170.8	100.05	99.85	99.65	99.42	99.24	99.06	98.90	98.71	98.54	98.40	98.27	98.16	98.07	97.98	97.90	97.83	97.73	97.68
Med.	170.1	100.04	99.85	99.65	99.42	99.24	99.06	98.90	98.70	98.54	98.40	98.27	98.17	98.09	97.98	97.90	97.84	97.74	97.69
St dev	1.4276	0.0347	0.0406	0.0419	0.0458	0.0526	0.0593	0.0619	0.0617	0.0645	0.0610	0.0616	0.0615	0.0632	0.0621	0.0637	0.0585	0.0585	0.0607
Min.	169.1	99.99	99.78	99.58	99.34	99.15	98.96	98.78	98.60	98.43	98.29	98.16	98.04	97.94	97.85	97.77	97.72	97.61	97.55
Max.	173.1	100.10	99.92	99.74	99.52	99.34	99.17	99.04	98.83	98.68	98.52	98.39	98.27	98.17	98.08	98.01	97.92	97.82	97.78

3.12 Data Set 3, 105°C, 180mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S51	2.655	100.02	99.81	99.61	99.39	99.15	98.97	98.76	98.59	98.43	98.31	98.19	98.07	97.95	97.86	97.80	97.72	97.66	97.60
S52	2.648	100.08	99.87	99.70	99.48	99.27	99.06	98.88	98.67	98.52	98.39	98.30	98.18	98.05	97.96	97.85	97.80	97.73	97.64
S53	2.649	100.06	99.85	99.68	99.50	99.29	99.09	98.92	98.75	98.56	98.43	98.31	98.22	98.15	97.99	97.88	97.83	97.73	97.64
S54	2.649	100.07	99.90	99.69	99.50	99.25	99.04	98.83	98.66	98.46	98.34	98.22	98.12	98.06	97.97	97.85	97.77	97.68	97.62
S55	2.649	99.99	99.81	99.60	99.39	99.17	98.98	98.80	98.60	98.40	98.25	98.16	98.06	98.00	97.91	97.85	97.77	97.71	97.65
S56	2.649	100.01	99.80	99.62	99.41	99.20	99.02	98.80	98.64	98.44	98.30	98.20	98.10	97.98	97.88	97.83	97.78	97.69	97.60
S57	2.649	100.06	99.89	99.68	99.50	99.29	99.07	98.86	98.65	98.46	98.33	98.24	98.12	97.99	97.84	97.72	97.67	97.58	97.48
S58	2.649	100.01	99.83	99.66	99.48	99.25	99.06	98.85	98.64	98.45	98.32	98.20	98.09	98.03	97.94	97.82	97.71	97.62	97.53
S59	2.650	99.99	99.78	99.58	99.36	99.14	98.93	98.71	98.51	98.31	98.18	98.07	97.97	97.84	97.69	97.64	97.59	97.52	97.41
S60	2.695	100.01	99.81	99.63	99.45	99.24	99.06	98.84	98.64	98.48	98.34	98.22	98.10	97.98	97.89	97.77	97.69	97.60	97.54
S61	2.695	99.99	99.79	99.58	99.39	99.14	98.96	98.79	98.62	98.42	98.28	98.18	98.09	98.03	97.94	97.88	97.78	97.66	97.54
S62	2.695	100.01	99.83	99.65	99.47	99.23	99.05	98.83	98.63	98.47	98.35	98.23	98.13	98.08	97.98	97.93	97.83	97.71	97.59
S63	2.694	100.07	99.90	99.69	99.50	99.28	99.09	98.91	98.71	98.55	98.43	98.31	98.21	98.15	98.06	98.01	97.90	97.84	97.72
S64	2.695	100.07	99.89	99.69	99.50	99.26	99.07	98.85	98.69	98.53	98.41	98.29	98.19	98.13	98.04	97.99	97.88	97.82	97.72
S65	2.695	100.02	99.81	99.60	99.41	99.17	98.99	98.77	98.57	98.37	98.22	98.11	98.01	97.95	97.85	97.74	97.68	97.62	97.56
S66	2.695	100.01	99.84	99.63	99.45	99.24	99.06	98.88	98.72	98.52	98.37	98.28	98.18	98.12	97.97	97.85	97.74	97.65	97.53
S67	2.695	100.04	99.84	99.66	99.45	99.20	98.99	98.81	98.65	98.45	98.32	98.23	98.11	98.06	97.97	97.91	97.83	97.74	97.68
S68	2.695	100.02	99.82	99.61	99.40	99.19	98.99	98.78	98.57	98.42	98.27	98.15	98.06	98.00	97.91	97.87	97.76	97.70	97.58
S69	2.695	99.99	99.81	99.64	99.42	99.21	99.03	98.81	98.61	98.45	98.31	98.19	98.10	98.03	97.94	97.89	97.81	97.69	97.60
S70	2.648	100.04	99.87	99.69	99.48	99.26	99.05	98.84	98.67	98.52	98.37	98.27	98.18	98.12	98.02	97.97	97.86	97.75	97.63
S71	2.647	100.03	99.85	99.65	99.45	99.24	99.03	98.85	98.69	98.49	98.35	98.25	98.14	98.07	97.98	97.93	97.88	97.82	97.75
S72	2.648	100.00	99.82	99.62	99.44	99.23	99.03	98.86	98.66	98.46	98.33	98.22	98.12	98.00	97.91	97.79	97.68	97.62	97.50
S73	2.649	100.04	99.83	99.63	99.45	99.24	99.06	98.88	98.67	98.52	98.39	98.28	98.18	98.12	98.03	97.91	97.86	97.77	97.70
S74	2.648	100.00	99.79	99.59	99.38	99.16	98.97	98.76	98.59	98.43	98.31	98.21	98.12	97.99	97.84	97.79	97.68	97.59	97.47
S75	2.649	100.00	99.83	99.62	99.44	99.20	98.98	98.77	98.56	98.37	98.24	98.15	98.05	97.93	97.84	97.79	97.74	97.62	97.56
Ave.	2.667	100.02	99.83	99.64	99.44	99.22	99.02	98.83	98.64	98.46	98.33	98.22	98.12	98.03	97.93	97.85	97.77	97.68	97.59
Med.	2.649	100.02	99.83	99.63	99.45	99.23	99.03	98.83	98.64	98.46	98.33	98.22	98.12	98.03	97.94	97.85	97.77	97.69	97.60
St dev	0.0230	0.0293	0.0339	0.0368	0.0431	0.0457	0.0441	0.0518	0.0554	0.0597	0.0618	0.0616	0.0607	0.0765	0.0823	0.0861	0.0792	0.0795	0.0854
Min.	2.647	99.99	99.78	99.58	99.36	99.14	98.93	98.71	98.51	98.31	98.18	98.07	97.97	97.84	97.69	97.64	97.59	97.52	97.41
Max.	2.695	100.08	99.90	99.70	99.50	99.29	99.09	98.92	98.75	98.56	98.43	98.31	98.22	98.15	98.06	98.01	97.90	97.84	97.75

3.13 Data Set 3, 105°C, 180mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S51	0.1800	100.03	99.86	99.66	99.37	99.13	98.93	98.74	98.57	98.42	98.29	98.17	98.02	97.94	97.84	97.76	97.70	97.65	97.56
S52	0.1796	100.00	99.82	99.62	99.37	99.15	98.95	98.77	98.60	98.43	98.28	98.16	98.04	97.96	97.85	97.74	97.69	97.60	97.52
S53	0.1796	100.05	99.88	99.68	99.43	99.20	99.05	98.86	98.71	98.58	98.43	98.34	98.22	98.14	98.05	97.96	97.90	97.85	97.76
S54	0.1796	99.99	99.82	99.62	99.33	99.10	98.89	98.73	98.59	98.45	98.34	98.23	98.09	98.02	97.92	97.82	97.77	97.69	97.63
S55	0.1797	99.99	99.82	99.62	99.32	99.10	98.90	98.70	98.53	98.39	98.25	98.13	97.99	97.90	97.80	97.72	97.64	97.58	97.50
S56	0.1796	100.04	99.87	99.67	99.37	99.14	98.93	98.76	98.63	98.48	98.36	98.24	98.09	98.02	97.92	97.82	97.74	97.68	97.60
S57	0.1796	100.03	99.85	99.65	99.36	99.18	98.97	98.79	98.64	98.47	98.35	98.23	98.08	97.99	97.89	97.79	97.73	97.65	97.59
S58	0.1797	100.03	99.86	99.66	99.36	99.17	98.97	98.77	98.60	98.44	98.31	98.20	98.05	97.98	97.89	97.78	97.70	97.64	97.59
S59	0.1797	100.01	99.84	99.63	99.35	99.12	98.96	98.80	98.66	98.51	98.36	98.25	98.10	98.04	97.95	97.84	97.78	97.73	97.64
S60	0.1866	100.00	99.83	99.63	99.33	99.10	98.90	98.70	98.53	98.39	98.27	98.18	98.05	97.96	97.87	97.77	97.69	97.64	97.56
S61	0.1866	100.01	99.84	99.64	99.34	99.11	98.95	98.77	98.60	98.44	98.30	98.21	98.07	97.99	97.90	97.80	97.74	97.69	97.63
S62	0.1868	100.03	99.86	99.66	99.37	99.13	98.97	98.81	98.64	98.49	98.37	98.28	98.16	98.09	98.00	97.91	97.86	97.80	97.75
S63	0.1866	100.01	99.84	99.64	99.35	99.11	98.95	98.75	98.60	98.45	98.30	98.21	98.06	98.00	97.91	97.82	97.74	97.68	97.63
S64	0.1867	100.05	99.88	99.67	99.42	99.20	98.99	98.79	98.64	98.49	98.35	98.24	98.09	98.03	97.92	97.82	97.77	97.71	97.63
S65	0.1867	100.00	99.83	99.63	99.38	99.15	98.99	98.79	98.62	98.45	98.32	98.21	98.06	97.99	97.88	97.79	97.73	97.68	97.62
S66	0.1868	100.09	99.92	99.71	99.46	99.23	99.02	98.82	98.65	98.51	98.39	98.27	98.13	98.06	97.97	97.86	97.80	97.75	97.69
S67	0.1867	100.00	99.83	99.63	99.38	99.19	98.98	98.80	98.66	98.51	98.39	98.29	98.17	98.09	97.98	97.88	97.83	97.77	97.72
S68	0.1866	100.08	99.91	99.71	99.41	99.22	99.06	98.88	98.71	98.56	98.44	98.32	98.17	98.11	98.01	97.91	97.86	97.80	97.72
S69	0.1866	100.06	99.89	99.68	99.43	99.24	99.05	98.85	98.68	98.53	98.38	98.26	98.11	98.02	97.91	97.82	97.74	97.68	97.63
S70	0.1793	100.03	99.85	99.65	99.37	99.13	98.92	98.76	98.59	98.42	98.28	98.16	98.01	97.92	97.82	97.73	97.67	97.61	97.56
S71	0.1792	100.03	99.86	99.65	99.41	99.17	99.01	98.81	98.67	98.50	98.35	98.25	98.11	98.04	97.95	97.86	97.80	97.72	97.67
S72	0.1794	100.06	99.89	99.69	99.44	99.21	99.05	98.89	98.72	98.55	98.41	98.32	98.17	98.09	98.01	97.92	97.84	97.78	97.70
S73	0.1794	100.02	99.85	99.65	99.35	99.16	98.96	98.78	98.65	98.48	98.34	98.22	98.10	98.03	97.95	97.85	97.77	97.69	97.60
S74	0.1793	100.03	99.86	99.65	99.36	99.13	98.97	98.77	98.60	98.45	98.33	98.24	98.10	98.04	97.94	97.84	97.79	97.73	97.67
S75	0.1794	100.02	99.85	99.65	99.35	99.12	98.97	98.80	98.66	98.49	98.36	98.24	98.09	98.01	97.92	97.84	97.78	97.72	97.67
Ave.	0.1824	100.03	99.86	99.65	99.38	99.16	98.97	98.79	98.63	98.48	98.34	98.23	98.09	98.02	97.92	97.83	97.76	97.70	97.63
Med.	0.1797	100.03	99.85	99.65	99.37	99.15	98.97	98.79	98.64	98.48	98.35	98.24	98.09	98.02	97.92	97.82	97.77	97.69	97.63
St dev	0.0036	0.0264	0.0263	0.0256	0.0376	0.0431	0.0478	0.0481	0.0502	0.0483	0.0500	0.0522	0.0546	0.0584	0.0613	0.0613	0.0647	0.0660	0.0678
Min.	0.1792	99.99	99.82	99.62	99.32	99.10	98.89	98.70	98.53	98.39	98.25	98.13	97.99	97.90	97.80	97.72	97.64	97.58	97.50
Max.	0.1868	100.09	99.92	99.71	99.46	99.24	99.06	98.89	98.72	98.58	98.44	98.34	98.22	98.14	98.05	97.96	97.90	97.85	97.76

3.14 Data Set 3, 105°C, 180mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S51	5.488	5.486	5.488	5.484	5.479	5.483	5.473	5.474	5.477	5.479	5.469	5.465	5.465	5.469	5.460	5.460	5.467	5.457	5.455
S52	5.478	5.475	5.479	5.473	5.475	5.470	5.465	5.465	5.458	5.458	5.455	5.460	5.455	5.459	5.459	5.458	5.451	5.454	5.445
S53	5.448	5.445	5.445	5.444	5.439	5.440	5.433	5.440	5.437	5.428	5.425	5.429	5.430	5.420	5.429	5.426	5.426	5.412	5.421
S54	5.480	5.476	5.474	5.476	5.476	5.471	5.472	5.472	5.469	5.471	5.464	5.461	5.459	5.461	5.461	5.451	5.451	5.456	5.456
S55	5.484	5.481	5.480	5.481	5.475	5.474	5.471	5.476	5.469	5.468	5.465	5.463	5.467	5.459	5.456	5.455	5.455	5.448	5.453
S56	5.482	5.480	5.479	5.479	5.478	5.473	5.476	5.468	5.470	5.463	5.467	5.465	5.468	5.459	5.454	5.453	5.455	5.449	5.451
S57	5.492	5.492	5.489	5.483	5.483	5.486	5.486	5.480	5.481	5.481	5.473	5.476	5.471	5.473	5.467	5.470	5.462	5.460	5.460
S58	5.477	5.479	5.477	5.472	5.469	5.472	5.465	5.471	5.468	5.457	5.461	5.463	5.454	5.457	5.458	5.448	5.448	5.450	5.453
S59	5.485	5.485	5.486	5.477	5.481	5.474	5.472	5.473	5.465	5.466	5.462	5.462	5.469	5.462	5.456	5.463	5.455	5.460	5.461
S60	5.481	5.483	5.476	5.477	5.471	5.470	5.473	5.476	5.464	5.466	5.469	5.458	5.458	5.452	5.460	5.461	5.461	5.448	5.449
S61	5.478	5.478	5.480	5.474	5.468	5.468	5.472	5.464	5.467	5.469	5.463	5.463	5.466	5.453	5.453	5.458	5.449	5.454	5.447
S62	5.485	5.485	5.482	5.476	5.481	5.476	5.479	5.472	5.474	5.466	5.467	5.462	5.462	5.466	5.457	5.465	5.463	5.448	5.449
S63	5.477	5.479	5.477	5.468	5.469	5.468	5.462	5.464	5.457	5.458	5.460	5.458	5.454	5.459	5.454	5.453	5.448	5.445	5.445
S64	5.441	5.441	5.441	5.437	5.436	5.432	5.427	5.425	5.432	5.421	5.429	5.427	5.420	5.423	5.422	5.419	5.419	5.416	5.408
S65	5.471	5.468	5.464	5.467	5.467	5.468	5.455	5.455	5.460	5.456	5.448	5.453	5.450	5.453	5.443	5.440	5.442	5.443	5.440
S66	5.470	5.466	5.470	5.461	5.466	5.465	5.460	5.457	5.459	5.461	5.458	5.449	5.449	5.447	5.447	5.441	5.440	5.447	5.444
S67	5.475	5.476	5.472	5.472	5.470	5.466	5.470	5.460	5.464	5.456	5.457	5.460	5.459	5.457	5.456	5.455	5.453	5.442	5.443
S68	5.473	5.474	5.467	5.469	5.469	5.464	5.467	5.459	5.462	5.461	5.458	5.459	5.454	5.453	5.448	5.449	5.444	5.446	5.437
S69	5.490	5.490	5.487	5.480	5.485	5.479	5.478	5.478	5.478	5.479	5.478	5.473	5.469	5.472	5.465	5.461	5.463	5.466	5.458
S70	5.482	5.444	5.440	5.438	5.438	5.433	5.429	5.437	5.424	5.425	5.425	5.426	5.427	5.414	5.413	5.411	5.414	5.409	5.410
S71	5.486	5.475	5.468	5.471	5.471	5.465	5.468	5.461	5.464	5.458	5.454	5.456	5.457	5.447	5.447	5.444	5.446	5.444	5.438
S72	5.474	5.469	5.470	5.468	5.465	5.463	5.465	5.460	5.462	5.454	5.459	5.452	5.454	5.450	5.450	5.444	5.444	5.449	5.442
S73	5.479	5.491	5.491	5.486	5.485	5.485	5.480	5.476	5.479	5.474	5.472	5.475	5.471	5.462	5.471	5.460	5.461	5.458	5.467
S74	5.476	5.435	5.442	5.433	5.438	5.432	5.437	5.429	5.423	5.431	5.421	5.419	5.426	5.423	5.414	5.422	5.422	5.416	5.418
S75	5.442	5.470	5.468	5.466	5.470	5.469	5.463	5.470	5.458	5.463	5.456	5.457	5.456	5.447	5.450	5.456	5.446	5.442	5.443
Ave.	5.476	5.473	5.472	5.469	5.468	5.466	5.464	5.462	5.461	5.459	5.457	5.456	5.455	5.452	5.450	5.449	5.447	5.445	5.444
Med.	5.478	5.476	5.476	5.472	5.470	5.469	5.468	5.465	5.464	5.461	5.460	5.460	5.457	5.457	5.454	5.453	5.449	5.448	5.445
St dev	0.0134	0.0158	0.0150	0.0149	0.0147	0.0154	0.0161	0.0150	0.0158	0.0164	0.0156	0.0150	0.0146	0.0159	0.0153	0.0152	0.0142	0.0153	0.0152
Min.	5.441	5.435	5.440	5.433	5.436	5.432	5.427	5.425	5.423	5.421	5.421	5.419	5.420	5.414	5.413	5.411	5.414	5.409	5.408
Max.	5.492	5.492	5.491	5.486	5.485	5.486	5.486	5.480	5.481	5.481	5.478	5.476	5.471	5.473	5.471	5.470	5.467	5.466	5.467

3.15 Data Set 3, 105°C, 180mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																	
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S51	0.2599	0.5256	2763	0.0003	0.0006	0.0008	0.0010	0.0012	0.0014	0.0017	0.0018	0.0022	0.0024	0.0026	0.0029	0.0033	0.0035	0.0037	0.0040	0.0043	0.0045
S52	0.2595	0.5253	2771	0.0003	0.0005	0.0008	0.0010	0.0013	0.0015	0.0019	0.0022	0.0026	0.0028	0.0029	0.0030	0.0034	0.0036	0.0039	0.0041	0.0044	0.0046
S53	0.2599	0.5254	2763	0.0004	0.0006	0.0009	0.0011	0.0014	0.0016	0.0019	0.0023	0.0024	0.0025	0.0026	0.0029	0.0032	0.0034	0.0036	0.0039	0.0041	0.0042
S54	0.2602	0.5270	2750	0.0003	0.0005	0.0007	0.0009	0.0011	0.0012	0.0015	0.0016	0.0020	0.0021	0.0022	0.0024	0.0026	0.0029	0.0032	0.0034	0.0037	0.0038
S55	0.2598	0.5258	2763	0.0003	0.0005	0.0007	0.0009	0.0011	0.0014	0.0017	0.0018	0.0021	0.0023	0.0025	0.0027	0.0030	0.0032	0.0035	0.0037	0.0039	0.0041
S56	0.2599	0.5268	2758	0.0003	0.0005	0.0008	0.0011	0.0013	0.0015	0.0018	0.0021	0.0024	0.0025	0.0028	0.0031	0.0034	0.0036	0.0039	0.0041	0.0044	0.0045
S57	0.2600	0.5261	2757	0.0004	0.0006	0.0008	0.0011	0.0014	0.0016	0.0020	0.0023	0.0025	0.0027	0.0028	0.0031	0.0034	0.0037	0.0039	0.0042	0.0044	0.0046
S58	0.2604	0.5266	2747	0.0003	0.0005	0.0007	0.0010	0.0011	0.0014	0.0015	0.0016	0.0017	0.0018	0.0019	0.0020	0.0024	0.0026	0.0030	0.0032	0.0035	0.0037
S59	0.2596	0.5251	2771	0.0002	0.0004	0.0007	0.0010	0.0012	0.0015	0.0017	0.0020	0.0021	0.0022	0.0023	0.0026	0.0029	0.0031	0.0033	0.0036	0.0038	0.0039
S60	0.2589	0.5281	2774	0.0003	0.0006	0.0008	0.0011	0.0013	0.0016	0.0020	0.0022	0.0023	0.0025	0.0026	0.0027	0.0030	0.0032	0.0035	0.0037	0.0040	0.0042
S61	0.2586	0.5277	2782	0.0003	0.0005	0.0008	0.0010	0.0013	0.0014	0.0015	0.0016	0.0017	0.0020	0.0023	0.0026	0.0028	0.0030	0.0033	0.0036	0.0038	0.0040
S62	0.2590	0.5286	2768	0.0003	0.0005	0.0008	0.0010	0.0011	0.0014	0.0018	0.0021	0.0022	0.0024	0.0025	0.0026	0.0029	0.0031	0.0034	0.0037	0.0040	0.0042
S63	0.2588	0.5283	2774	0.0002	0.0005	0.0008	0.0009	0.0011	0.0014	0.0015	0.0016	0.0017	0.0020	0.0021	0.0022	0.0025	0.0027	0.0031	0.0033	0.0035	0.0037
S64	0.2589	0.5279	2773	0.0002	0.0004	0.0006	0.0009	0.0011	0.0014	0.0015	0.0016	0.0019	0.0020	0.0021	0.0022	0.0025	0.0027	0.0030	0.0032	0.0035	0.0037
S65	0.2585	0.5278	2782	0.0003	0.0005	0.0008	0.0010	0.0011	0.0014	0.0017	0.0020	0.0021	0.0024	0.0027	0.0029	0.0032	0.0034	0.0037	0.0039	0.0042	0.0043
S66	0.2594	0.5290	2757	0.0003	0.0006	0.0008	0.0009	0.0011	0.0013	0.0014	0.0018	0.0022	0.0023	0.0024	0.0027	0.0030	0.0032	0.0036	0.0038	0.0041	0.0042
S67	0.2588	0.5293	2769	0.0002	0.0005	0.0007	0.0010	0.0011	0.0012	0.0016	0.0019	0.0023	0.0025	0.0028	0.0031	0.0035	0.0036	0.0039	0.0042	0.0044	0.0046
S68	0.2592	0.5295	2759	0.0003	0.0005	0.0007	0.0010	0.0012	0.0014	0.0016	0.0017	0.0021	0.0023	0.0024	0.0025	0.0028	0.0030	0.0033	0.0036	0.0038	0.0040
S69	0.2586	0.5278	2782	0.0002	0.0005	0.0008	0.0010	0.0012	0.0014	0.0015	0.0019	0.0023	0.0025	0.0027	0.0029	0.0033	0.0035	0.0038	0.0041	0.0043	0.0044
S70	0.2590	0.5249	2785	0.0003	0.0005	0.0007	0.0010	0.0012	0.0015	0.0019	0.0021	0.0025	0.0026	0.0027	0.0030	0.0033	0.0034	0.0037	0.0040	0.0043	0.0044
S71	0.2592	0.5253	2779	0.0003	0.0005	0.0008	0.0010	0.0013	0.0014	0.0015	0.0016	0.0020	0.0023	0.0025	0.0027	0.0029	0.0032	0.0036	0.0038	0.0041	0.0043
S72	0.2593	0.5263	2771	0.0002	0.0004	0.0006	0.0009	0.0011	0.0014	0.0017	0.0018	0.0019	0.0020	0.0021	0.0022	0.0026	0.0027	0.0031	0.0034	0.0036	0.0037
S73	0.2588	0.5244	2791	0.0002	0.0005	0.0008	0.0009	0.0012	0.0014	0.0017	0.0021	0.0023	0.0025	0.0026	0.0029	0.0032	0.0034	0.0037	0.0040	0.0043	0.0045
S74	0.2590	0.5261	2779	0.0003	0.0006	0.0008	0.0010	0.0012	0.0014	0.0015	0.0017	0.0021	0.0022	0.0024	0.0026	0.0029	0.0032	0.0035	0.0037	0.0040	0.0042
S75	0.2589	0.5247	2787	0.0003	0.0005	0.0008	0.0010	0.0013	0.0015	0.0019	0.0022	0.0023	0.0024	0.0026	0.0029	0.0032	0.0034	0.0036	0.0039	0.0042	0.0044
Ave.	0.2593	0.5268	2770	0.0003	0.0005	0.0008	0.0010	0.0012	0.0014	0.0017	0.0019	0.0022	0.0023	0.0025	0.0027	0.0030	0.0032	0.0035	0.0038	0.0040	0.0042
Med.	0.2592	0.5266	2771	0.0003	0.0005	0.0008	0.0010	0.0012	0.0014	0.0017	0.0019	0.0022	0.0024	0.0025	0.0027	0.0030	0.0032	0.0036	0.0038	0.0041	0.0042
St dev	0.0005	0.0015	11.6833	0.0001	0.0000	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
Min.	0.2585	0.5244	2747	0.0002	0.0004	0.0006	0.0009	0.0011	0.0012	0.0014	0.0016	0.0017	0.0018	0.0019	0.0020	0.0024	0.0026	0.0030	0.0032	0.0035	0.0037
Max.	0.2604	0.5295	2791	0.0004	0.0006	0.0009	0.0011	0.0014	0.0016	0.0020	0.0023	0.0026	0.0028	0.0029	0.0031	0.0035	0.0037	0.0039	0.0042	0.0044	0.0046

3.16 Data Set 4, 55°C, 500mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S76	441.4	100.15	100.02	99.88	99.68	99.47	99.31	99.16	99.03	98.90	98.76	98.63	98.49	98.39	98.29	98.26	98.18	98.13	98.05
S77	445.0	100.15	100.01	99.88	99.74	99.54	99.33	99.23	99.10	99.00	98.87	98.78	98.70	98.61	98.54	98.47	98.40	98.35	98.27
S78	445.7	100.16	100.02	99.88	99.68	99.47	99.34	99.21	99.06	98.96	98.82	98.69	98.60	98.54	98.44	98.37	98.29	98.21	98.14
S79	444.9	100.12	99.99	99.85	99.64	99.44	99.23	99.09	98.99	98.88	98.80	98.66	98.53	98.43	98.33	98.24	98.16	98.11	98.03
S80	443.7	100.16	100.02	99.89	99.75	99.62	99.48	99.35	99.22	99.09	98.95	98.82	98.71	98.61	98.52	98.43	98.36	98.28	98.20
S81	444.5	100.18	100.04	99.90	99.70	99.49	99.28	99.15	99.05	98.91	98.82	98.69	98.60	98.50	98.43	98.33	98.26	98.18	98.10
S82	446.3	100.15	100.01	99.87	99.73	99.60	99.39	99.29	99.16	99.06	98.92	98.79	98.70	98.64	98.57	98.48	98.41	98.33	98.25
S83	444.4	100.18	100.05	99.91	99.70	99.57	99.44	99.33	99.23	99.09	98.95	98.87	98.78	98.72	98.63	98.54	98.48	98.43	98.35
S84	443.6	100.19	100.05	99.92	99.78	99.58	99.44	99.31	99.17	99.02	98.94	98.80	98.69	98.59	98.50	98.40	98.33	98.25	98.17
S85	445.9	100.10	99.97	99.80	99.64	99.47	99.26	99.13	98.98	98.85	98.72	98.63	98.53	98.43	98.33	98.23	98.17	98.10	98.02
S86	445.7	100.15	100.01	99.87	99.74	99.54	99.33	99.20	99.10	99.00	98.91	98.83	98.69	98.59	98.53	98.43	98.35	98.27	98.19
S87	441.3	100.17	100.04	99.91	99.73	99.53	99.32	99.15	98.99	98.84	98.71	98.57	98.46	98.37	98.31	98.21	98.14	98.08	98.00
S88	441.1	100.20	100.06	99.93	99.72	99.59	99.38	99.22	99.07	98.94	98.81	98.67	98.59	98.53	98.43	98.33	98.25	98.17	98.09
S89	439.8	100.11	99.97	99.83	99.69	99.49	99.29	99.18	99.08	98.95	98.82	98.73	98.59	98.51	98.44	98.37	98.30	98.24	98.18
S90	444.5	100.17	100.03	99.90	99.76	99.56	99.42	99.28	99.17	99.03	98.94	98.81	98.67	98.58	98.48	98.38	98.31	98.24	98.16
S91	442.0	100.16	100.02	99.88	99.75	99.61	99.48	99.33	99.18	99.04	98.90	98.82	98.68	98.59	98.50	98.41	98.36	98.28	98.20
S92	446.6	100.16	100.02	99.88	99.68	99.54	99.41	99.31	99.16	99.01	98.88	98.74	98.66	98.56	98.49	98.39	98.31	98.24	98.17
S93	446.8	100.20	100.05	99.91	99.78	99.64	99.51	99.41	99.28	99.17	99.04	98.90	98.77	98.70	98.61	98.55	98.47	98.42	98.34
S94	445.2	100.16	100.02	99.88	99.68	99.48	99.27	99.11	98.98	98.88	98.75	98.61	98.50	98.40	98.30	98.24	98.16	98.09	98.01
S95	443.8	100.11	99.97	99.83	99.65	99.45	99.25	99.07	98.94	98.77	98.63	98.49	98.36	98.26	98.16	98.09	98.01	97.95	97.89
S96	445.6	100.17	100.04	99.90	99.70	99.49	99.29	99.16	99.01	98.91	98.78	98.69	98.56	98.47	98.40	98.31	98.24	98.17	98.09
S97	446.9	100.13	100.00	99.86	99.73	99.53	99.32	99.22	99.07	98.93	98.79	98.66	98.52	98.45	98.35	98.29	98.21	98.13	98.05
S98	446.8	100.11	99.98	99.83	99.63	99.50	99.36	99.26	99.11	98.97	98.88	98.80	98.71	98.62	98.53	98.47	98.40	98.32	98.24
S99	447.7	100.18	100.04	99.90	99.69	99.49	99.36	99.25	99.12	98.99	98.86	98.72	98.64	98.57	98.51	98.44	98.37	98.29	98.21
S100	448.1	100.18	100.04	99.90	99.70	99.49	99.29	99.16	99.03	98.90	98.81	98.68	98.59	98.49	98.43	98.36	98.31	98.25	98.20
Ave.	444.7	100.16	100.02	99.88	99.71	99.53	99.35	99.22	99.09	98.96	98.84	98.72	98.61	98.53	98.44	98.36	98.29	98.22	98.14
Med.	445.0	100.16	100.02	99.88	99.70	99.53	99.33	99.22	99.08	98.96	98.82	98.72	98.60	98.54	98.44	98.37	98.31	98.24	98.17
St dev	2.1882	0.0276	0.0277	0.0313	0.0424	0.0563	0.0773	0.0878	0.0883	0.0910	0.0930	0.0980	0.1024	0.1080	0.1120	0.1100	0.1123	0.1109	0.1098
Min.	439.8	100.10	99.97	99.80	99.63	99.44	99.23	99.07	98.94	98.77	98.63	98.49	98.36	98.26	98.16	98.09	98.01	97.95	97.89
Max.	448.1	100.20	100.06	99.93	99.78	99.64	99.51	99.41	99.28	99.17	99.04	98.90	98.78	98.72	98.63	98.55	98.48	98.43	98.35

3.17 Data Set 4, 55°C, 500mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S76	6.820	100.14	100.02	99.90	99.75	99.56	99.41	99.30	99.18	99.07	98.95	98.83	98.73	98.61	98.52	98.44	98.40	98.36	98.29
S77	6.889	100.13	100.01	99.89	99.74	99.58	99.43	99.28	99.14	99.03	98.91	98.79	98.67	98.60	98.47	98.39	98.35	98.31	98.20
S78	6.891	100.14	100.02	99.90	99.71	99.56	99.42	99.30	99.19	99.05	98.93	98.83	98.71	98.58	98.50	98.37	98.33	98.23	98.13
S79	6.890	100.16	100.04	99.92	99.73	99.58	99.43	99.28	99.17	99.06	98.97	98.84	98.72	98.59	98.47	98.34	98.27	98.23	98.19
S80	6.887	100.12	100.00	99.88	99.72	99.57	99.42	99.31	99.17	99.03	98.93	98.84	98.72	98.64	98.57	98.50	98.44	98.34	98.27
S81	6.884	100.17	100.04	99.93	99.78	99.63	99.48	99.37	99.26	99.15	99.02	98.93	98.81	98.68	98.60	98.47	98.37	98.33	98.26
S82	6.883	100.16	100.04	99.92	99.73	99.57	99.43	99.32	99.17	99.06	98.97	98.87	98.75	98.67	98.59	98.46	98.42	98.37	98.27
S83	6.881	100.13	100.01	99.89	99.69	99.54	99.39	99.27	99.16	99.02	98.90	98.81	98.71	98.63	98.50	98.42	98.35	98.31	98.27
S84	6.882	100.12	100.00	99.88	99.69	99.53	99.38	99.27	99.16	99.01	98.89	98.77	98.65	98.57	98.44	98.36	98.29	98.23	98.12
S85	6.883	100.08	99.96	99.84	99.70	99.50	99.35	99.24	99.13	98.98	98.86	98.77	98.67	98.61	98.48	98.40	98.33	98.26	98.20
S86	6.843	100.12	100.00	99.88	99.73	99.59	99.43	99.32	99.21	99.10	98.98	98.86	98.76	98.68	98.55	98.47	98.40	98.36	98.26
S87	6.790	100.11	99.99	99.87	99.68	99.53	99.38	99.23	99.12	99.01	98.89	98.80	98.68	98.55	98.47	98.34	98.24	98.17	98.07
S88	6.791	100.13	100.00	99.88	99.73	99.58	99.39	99.28	99.17	99.06	98.94	98.84	98.72	98.59	98.51	98.45	98.38	98.31	98.21
S89	6.787	100.11	99.98	99.87	99.71	99.57	99.41	99.30	99.19	99.08	98.98	98.89	98.77	98.71	98.64	98.56	98.49	98.43	98.38
S90	6.840	100.11	99.99	99.87	99.68	99.53	99.38	99.27	99.16	99.05	98.93	98.84	98.72	98.59	98.52	98.46	98.36	98.31	98.25
S91	6.804	100.10	99.98	99.86	99.70	99.56	99.36	99.22	99.11	99.00	98.91	98.78	98.66	98.53	98.47	98.40	98.30	98.23	98.19
S92	6.838	100.16	100.04	99.92	99.77	99.61	99.42	99.31	99.16	99.05	98.93	98.84	98.71	98.59	98.50	98.38	98.27	98.21	98.11
S93	6.836	100.11	99.99	99.86	99.67	99.47	99.28	99.17	99.02	98.91	98.79	98.67	98.58	98.45	98.38	98.25	98.21	98.15	98.10
S94	6.837	100.15	100.03	99.91	99.71	99.56	99.40	99.26	99.15	99.04	98.92	98.80	98.67	98.54	98.46	98.38	98.31	98.27	98.21
S95	6.835	100.11	100.00	99.87	99.68	99.53	99.33	99.22	99.08	98.97	98.85	98.73	98.63	98.55	98.47	98.40	98.34	98.29	98.25
S96	6.892	100.13	100.01	99.89	99.73	99.59	99.43	99.32	99.18	99.07	98.95	98.85	98.73	98.60	98.48	98.35	98.28	98.24	98.20
S97	6.890	100.08	99.96	99.84	99.69	99.54	99.39	99.27	99.16	99.02	98.90	98.78	98.69	98.60	98.54	98.47	98.43	98.36	98.30
S98	6.890	100.14	100.02	99.90	99.75	99.55	99.40	99.29	99.18	99.07	98.98	98.86	98.76	98.70	98.57	98.51	98.40	98.36	98.26
S99	6.890	100.15	100.03	99.91	99.76	99.57	99.42	99.28	99.17	99.06	98.94	98.82	98.70	98.61	98.55	98.48	98.38	98.32	98.25
S100	6.891	100.17	100.04	99.93	99.78	99.63	99.48	99.37	99.22	99.11	99.02	98.90	98.80	98.68	98.55	98.47	98.40	98.30	98.26
Ave.	6.858	100.13	100.01	99.89	99.72	99.56	99.40	99.28	99.16	99.04	98.93	98.82	98.71	98.61	98.51	98.42	98.35	98.29	98.22
Med.	6.882	100.13	100.01	99.89	99.72	99.56	99.41	99.28	99.17	99.05	98.93	98.83	98.71	98.60	98.50	98.42	98.35	98.31	98.25
St dev	0.0372	0.0255	0.0246	0.0248	0.0324	0.0352	0.0426	0.0445	0.0459	0.0479	0.0518	0.0558	0.0534	0.0593	0.0573	0.0676	0.0673	0.0683	0.0722
Min.	6.787	100.08	99.96	99.84	99.67	99.47	99.28	99.17	99.02	98.91	98.79	98.67	98.58	98.45	98.38	98.25	98.21	98.15	98.07
Max.	6.892	100.17	100.04	99.93	99.78	99.63	99.48	99.37	99.26	99.15	99.02	98.93	98.81	98.71	98.64	98.56	98.49	98.43	98.38

3.18 Data Set 4, 55°C, 500mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S76	0.4545	100.10	100.01	99.91	99.76	99.63	99.46	99.30	99.18	99.06	98.95	98.85	98.74	98.65	98.53	98.42	98.36	98.30	98.24
S77	0.4591	100.16	100.06	99.97	99.81	99.69	99.57	99.41	99.26	99.09	99.00	98.89	98.78	98.70	98.61	98.52	98.45	98.41	98.32
S78	0.4590	100.19	100.09	99.99	99.82	99.67	99.50	99.38	99.21	99.09	98.98	98.82	98.71	98.63	98.52	98.41	98.36	98.31	98.25
S79	0.4592	100.12	100.03	99.94	99.78	99.66	99.49	99.37	99.20	99.05	98.89	98.79	98.64	98.52	98.43	98.34	98.25	98.17	98.12
S80	0.4590	100.11	100.01	99.92	99.74	99.62	99.47	99.35	99.18	99.02	98.92	98.83	98.72	98.63	98.53	98.44	98.36	98.30	98.24
S81	0.4589	100.15	100.06	99.96	99.81	99.69	99.51	99.39	99.23	99.11	99.00	98.90	98.74	98.63	98.54	98.45	98.39	98.34	98.28
S82	0.4587	100.20	100.10	100.01	99.84	99.68	99.51	99.39	99.27	99.11	98.99	98.90	98.80	98.71	98.62	98.54	98.49	98.41	98.35
S83	0.4590	100.20	100.10	100.01	99.85	99.73	99.57	99.45	99.29	99.17	99.06	98.95	98.85	98.76	98.67	98.55	98.47	98.41	98.36
S84	0.4589	100.16	100.07	99.97	99.82	99.70	99.57	99.45	99.29	99.13	98.97	98.86	98.70	98.59	98.47	98.39	98.31	98.26	98.21
S85	0.4590	100.14	100.05	99.96	99.83	99.71	99.59	99.47	99.31	99.15	99.06	98.90	98.74	98.63	98.55	98.43	98.37	98.31	98.25
S86	0.4668	100.14	100.04	99.95	99.79	99.67	99.51	99.39	99.27	99.11	99.00	98.90	98.79	98.68	98.59	98.49	98.44	98.36	98.28
S87	0.4663	100.10	100.01	99.91	99.79	99.62	99.45	99.29	99.14	99.02	98.86	98.75	98.65	98.54	98.45	98.33	98.25	98.20	98.14
S88	0.4658	100.16	100.07	99.97	99.81	99.64	99.49	99.32	99.20	99.05	98.89	98.79	98.64	98.54	98.47	98.39	98.33	98.28	98.23
S89	0.4665	100.12	100.03	99.93	99.78	99.62	99.50	99.33	99.17	99.01	98.91	98.80	98.64	98.55	98.46	98.38	98.33	98.28	98.20
S90	0.4668	100.13	100.04	99.94	99.77	99.61	99.46	99.30	99.17	99.01	98.90	98.79	98.63	98.55	98.44	98.35	98.29	98.24	98.15
S91	0.4667	100.11	100.01	99.92	99.80	99.64	99.52	99.36	99.19	99.07	98.98	98.88	98.79	98.71	98.59	98.52	98.47	98.41	98.35
S92	0.4669	100.15	100.06	99.96	99.79	99.62	99.45	99.33	99.17	99.02	98.86	98.77	98.65	98.56	98.45	98.36	98.27	98.22	98.16
S93	0.4671	100.14	100.05	99.95	99.78	99.63	99.51	99.38	99.22	99.10	99.00	98.89	98.80	98.71	98.61	98.50	98.42	98.37	98.28
S94	0.4667	100.10	100.01	99.91	99.79	99.62	99.45	99.33	99.17	99.02	98.92	98.81	98.65	98.56	98.48	98.37	98.28	98.20	98.15
S95	0.4666	100.18	100.08	99.99	99.87	99.74	99.57	99.45	99.33	99.18	99.08	98.99	98.89	98.80	98.72	98.61	98.56	98.51	98.45
S96	0.4718	100.10	100.00	99.91	99.74	99.57	99.41	99.29	99.17	99.02	98.86	98.70	98.54	98.45	98.34	98.26	98.21	98.15	98.07
S97	0.4715	100.14	100.05	99.95	99.83	99.66	99.50	99.38	99.23	99.06	98.95	98.84	98.75	98.65	98.58	98.48	98.42	98.36	98.28
S98	0.4716	100.18	100.09	99.99	99.87	99.70	99.53	99.37	99.25	99.13	99.02	98.93	98.83	98.74	98.66	98.55	98.49	98.44	98.35
S99	0.4717	100.19	100.10	100.01	99.85	99.69	99.57	99.45	99.29	99.12	99.03	98.92	98.76	98.68	98.59	98.51	98.43	98.38	98.32
S100	0.4718	100.20	100.11	100.01	99.84	99.67	99.50	99.38	99.26	99.10	98.99	98.88	98.77	98.69	98.61	98.54	98.45	98.37	98.31
Ave.	0.4644	100.15	100.05	99.96	99.81	99.66	99.51	99.37	99.23	99.08	98.96	98.85	98.73	98.63	98.54	98.44	98.38	98.32	98.25
Med.	0.4665	100.14	100.05	99.96	99.81	99.66	99.50	99.38	99.22	99.09	98.98	98.86	98.74	98.63	98.54	98.44	98.37	98.31	98.25
St dev	0.0053	0.0341	0.0343	0.0341	0.0360	0.0416	0.0477	0.0542	0.0524	0.0519	0.0645	0.0671	0.0820	0.0847	0.0901	0.0869	0.0899	0.0902	0.0892
Min.	0.4545	100.10	100.00	99.91	99.74	99.57	99.41	99.29	99.14	99.01	98.86	98.70	98.54	98.45	98.34	98.26	98.21	98.15	98.07
Max.	0.4718	100.20	100.11	100.01	99.87	99.74	99.59	99.47	99.33	99.18	99.08	98.99	98.89	98.80	98.72	98.61	98.56	98.51	98.45

3.19 Data Set 4, 55°C, 500mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S76	5.859	5.861	5.850	5.858	5.856	5.853	5.854	5.851	5.847	5.839	5.844	5.834	5.841	5.838	5.837	5.835	5.838	5.830	5.826
S77	5.898	5.896	5.897	5.889	5.896	5.891	5.890	5.882	5.878	5.880	5.882	5.883	5.880	5.868	5.871	5.870	5.865	5.871	5.859
S78	5.888	5.890	5.884	5.880	5.885	5.884	5.880	5.880	5.876	5.873	5.873	5.862	5.861	5.864	5.865	5.863	5.856	5.860	5.854
S79	5.894	5.892	5.887	5.892	5.891	5.882	5.889	5.878	5.883	5.884	5.872	5.870	5.866	5.867	5.870	5.867	5.866	5.863	5.863
S80	5.905	5.906	5.904	5.898	5.893	5.895	5.896	5.896	5.895	5.895	5.890	5.881	5.878	5.880	5.880	5.880	5.871	5.874	5.877
S81	5.892	5.887	5.891	5.890	5.886	5.889	5.885	5.884	5.872	5.872	5.877	5.876	5.864	5.875	5.865	5.860	5.859	5.859	5.859
S82	5.889	5.882	5.888	5.887	5.880	5.879	5.873	5.876	5.877	5.874	5.870	5.874	5.869	5.865	5.867	5.857	5.855	5.856	5.856
S83	5.887	5.884	5.887	5.883	5.878	5.877	5.873	5.878	5.872	5.873	5.872	5.863	5.866	5.869	5.863	5.865	5.866	5.860	5.853
S84	5.899	5.892	5.896	5.890	5.890	5.887	5.894	5.882	5.879	5.881	5.884	5.875	5.882	5.878	5.874	5.867	5.870	5.860	5.862
S85	5.884	5.879	5.883	5.877	5.882	5.875	5.876	5.876	5.869	5.872	5.865	5.869	5.866	5.856	5.859	5.856	5.857	5.847	5.857
S86	5.865	5.867	5.862	5.863	5.859	5.856	5.855	5.860	5.850	5.850	5.846	5.846	5.847	5.847	5.833	5.834	5.841	5.834	5.837
S87	5.825	5.822	5.821	5.817	5.815	5.822	5.809	5.818	5.813	5.811	5.810	5.801	5.805	5.797	5.801	5.800	5.797	5.798	5.788
S88	5.855	5.853	5.852	5.853	5.846	5.849	5.842	5.838	5.845	5.845	5.840	5.829	5.830	5.825	5.831	5.831	5.823	5.821	5.816
S89	5.860	5.853	5.859	5.856	5.851	5.854	5.846	5.851	5.850	5.841	5.845	5.845	5.832	5.832	5.835	5.833	5.827	5.824	5.826
S90	5.868	5.870	5.864	5.860	5.865	5.865	5.859	5.861	5.858	5.858	5.848	5.848	5.840	5.844	5.845	5.840	5.841	5.835	5.840
S91	5.860	5.858	5.860	5.852	5.858	5.850	5.844	5.855	5.842	5.841	5.836	5.843	5.842	5.840	5.835	5.833	5.835	5.826	5.826
S92	5.852	5.853	5.850	5.851	5.848	5.843	5.842	5.836	5.842	5.834	5.836	5.835	5.827	5.825	5.828	5.824	5.828	5.823	5.819
S93	5.857	5.853	5.854	5.855	5.851	5.851	5.852	5.852	5.845	5.846	5.840	5.833	5.839	5.839	5.829	5.825	5.833	5.826	5.823
S94	5.854	5.856	5.852	5.845	5.845	5.844	5.847	5.837	5.840	5.835	5.832	5.830	5.830	5.824	5.826	5.826	5.821	5.827	5.825
S95	5.871	5.866	5.867	5.862	5.860	5.863	5.860	5.853	5.855	5.849	5.854	5.844	5.844	5.851	5.841	5.844	5.835	5.841	5.833
S96	5.890	5.848	5.851	5.851	5.843	5.843	5.847	5.845	5.842	5.837	5.828	5.837	5.828	5.828	5.819	5.830	5.818	5.825	5.818
S97	5.881	5.850	5.853	5.856	5.854	5.847	5.840	5.844	5.846	5.847	5.832	5.833	5.832	5.833	5.825	5.824	5.824	5.828	5.824
S98	5.878	5.855	5.851	5.853	5.851	5.842	5.847	5.837	5.839	5.840	5.832	5.837	5.827	5.836	5.822	5.821	5.820	5.817	5.818
S99	5.841	5.870	5.867	5.865	5.866	5.866	5.855	5.860	5.851	5.858	5.854	5.854	5.842	5.839	5.844	5.845	5.842	5.843	5.843
S100	5.869	5.854	5.848	5.852	5.842	5.843	5.842	5.843	5.842	5.841	5.830	5.830	5.834	5.825	5.827	5.824	5.828	5.815	5.823
Ave.	5.873	5.868	5.867	5.865	5.864	5.862	5.860	5.859	5.856	5.855	5.852	5.849	5.847	5.846	5.844	5.842	5.840	5.838	5.837
Med.	5.871	5.866	5.862	5.860	5.859	5.856	5.855	5.855	5.850	5.849	5.846	5.845	5.842	5.840	5.837	5.835	5.838	5.834	5.833
St dev	0.0201	0.0196	0.0204	0.0194	0.0204	0.0196	0.0213	0.0196	0.0188	0.0202	0.0211	0.0205	0.0201	0.0208	0.0209	0.0198	0.0195	0.0199	0.0207
Min.	5.825	5.822	5.821	5.817	5.815	5.822	5.809	5.818	5.813	5.811	5.810	5.801	5.805	5.797	5.801	5.800	5.797	5.798	5.788
Max.	5.905	5.906	5.904	5.898	5.896	5.895	5.896	5.896	5.895	5.895	5.890	5.883	5.882	5.880	5.880	5.880	5.871	5.874	5.877

3.20 Data Set 4, 55°C, 500mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	12000hrs	18000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S76	0.2583	0.5250	2799	0.0002	0.0004	0.0005	0.0008	0.0010	0.0012	0.0014	0.0016	0.0017	0.0019	0.0020	0.0022	0.0025	0.0028	0.0029	0.0030	0.0031	0.0032
S77	0.2583	0.5252	2800	0.0001	0.0003	0.0004	0.0006	0.0008	0.0010	0.0012	0.0014	0.0016	0.0017	0.0018	0.0020	0.0021	0.0024	0.0027	0.0030	0.0031	0.0032
S78	0.2580	0.5250	2807	0.0002	0.0004	0.0007	0.0009	0.0011	0.0013	0.0015	0.0016	0.0018	0.0020	0.0022	0.0023	0.0024	0.0027	0.0029	0.0031	0.0033	0.0035
S79	0.2582	0.5247	2804	0.0001	0.0004	0.0005	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0018	0.0019	0.0021	0.0024	0.0025	0.0026	0.0028	0.0030	0.0032
S80	0.2580	0.5250	2807	0.0001	0.0004	0.0005	0.0007	0.0009	0.0011	0.0013	0.0014	0.0016	0.0017	0.0019	0.0022	0.0023	0.0024	0.0025	0.0026	0.0028	0.0029
S81	0.2582	0.5255	2799	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0014	0.0015	0.0017	0.0019	0.0021	0.0023	0.0024	0.0025	0.0026	0.0027	0.0030	0.0031
S82	0.2584	0.5265	2791	0.0001	0.0003	0.0005	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0019	0.0021	0.0023	0.0026	0.0029	0.0032	0.0033	0.0034	0.0035
S83	0.2587	0.5266	2784	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0019	0.0021	0.0023	0.0025	0.0028	0.0031	0.0032	0.0033	0.0036
S84	0.2586	0.5257	2791	0.0001	0.0003	0.0004	0.0006	0.0008	0.0011	0.0013	0.0014	0.0015	0.0018	0.0020	0.0021	0.0024	0.0027	0.0030	0.0032	0.0033	0.0035
S85	0.2589	0.5262	2781	0.0001	0.0003	0.0005	0.0008	0.0010	0.0012	0.0013	0.0015	0.0017	0.0019	0.0020	0.0022	0.0023	0.0026	0.0029	0.0031	0.0032	0.0034
S86	0.2563	0.5298	2820	0.0002	0.0003	0.0005	0.0007	0.0010	0.0012	0.0013	0.0014	0.0016	0.0017	0.0018	0.0019	0.0022	0.0023	0.0024	0.0026	0.0028	0.0030
S87	0.2577	0.5294	2793	0.0002	0.0004	0.0005	0.0008	0.0010	0.0012	0.0015	0.0016	0.0018	0.0021	0.0022	0.0024	0.0025	0.0026	0.0029	0.0030	0.0033	0.0035
S88	0.2573	0.5293	2802	0.0001	0.0003	0.0005	0.0007	0.0010	0.0012	0.0014	0.0016	0.0018	0.0019	0.0020	0.0021	0.0022	0.0025	0.0028	0.0029	0.0031	0.0033
S89	0.2575	0.5299	2794	0.0001	0.0004	0.0005	0.0007	0.0010	0.0012	0.0013	0.0014	0.0016	0.0017	0.0019	0.0021	0.0024	0.0027	0.0028	0.0030	0.0031	0.0033
S90	0.2565	0.5302	2815	0.0002	0.0004	0.0005	0.0008	0.0010	0.0013	0.0014	0.0017	0.0018	0.0019	0.0021	0.0022	0.0023	0.0026	0.0029	0.0030	0.0032	0.0034
S91	0.2570	0.5291	2810	0.0001	0.0002	0.0004	0.0007	0.0009	0.0011	0.0012	0.0013	0.0015	0.0018	0.0020	0.0021	0.0022	0.0025	0.0028	0.0029	0.0031	0.0034
S92	0.2570	0.5306	2803	0.0001	0.0003	0.0004	0.0007	0.0009	0.0011	0.0012	0.0014	0.0016	0.0018	0.0020	0.0022	0.0023	0.0024	0.0025	0.0026	0.0027	0.0029
S93	0.2565	0.5308	2812	0.0002	0.0004	0.0005	0.0008	0.0010	0.0011	0.0013	0.0015	0.0016	0.0018	0.0020	0.0022	0.0025	0.0026	0.0028	0.0031	0.0032	0.0033
S94	0.2567	0.5310	2808	0.0001	0.0003	0.0005	0.0007	0.0010	0.0011	0.0014	0.0015	0.0016	0.0017	0.0019	0.0021	0.0024	0.0025	0.0028	0.0030	0.0031	0.0033
S95	0.2560	0.5293	2830	0.0002	0.0004	0.0005	0.0007	0.0010	0.0011	0.0013	0.0014	0.0016	0.0017	0.0019	0.0020	0.0023	0.0026	0.0029	0.0031	0.0033	0.0034
S96	0.2570	0.5288	2810	0.0001	0.0003	0.0005	0.0008	0.0010	0.0012	0.0013	0.0014	0.0015	0.0017	0.0018	0.0019	0.0022	0.0025	0.0026	0.0028	0.0029	0.0031
S97	0.2573	0.5290	2803	0.0001	0.0003	0.0004	0.0006	0.0009	0.0011	0.0013	0.0015	0.0017	0.0019	0.0021	0.0023	0.0026	0.0029	0.0032	0.0035	0.0036	0.0038
S98	0.2572	0.5286	2807	0.0001	0.0003	0.0004	0.0007	0.0009	0.0011	0.0013	0.0015	0.0016	0.0018	0.0020	0.0022	0.0025	0.0028	0.0029	0.0030	0.0031	0.0033
S99	0.2574	0.5288	2802	0.0002	0.0004	0.0005	0.0007	0.0009	0.0011	0.0013	0.0014	0.0016	0.0018	0.0020	0.0021	0.0024	0.0027	0.0030	0.0032	0.0033	0.0035
S100	0.2579	0.5300	2785	0.0001	0.0003	0.0005	0.0007	0.0009	0.0011	0.0013	0.0015	0.0016	0.0018	0.0020	0.0021	0.0024	0.0027	0.0028	0.0030	0.0033	0.0035
Ave.	0.2576	0.5280	2802	0.0001	0.0003	0.0005	0.0007	0.0009	0.0012	0.0013	0.0015	0.0017	0.0018	0.0020	0.0022	0.0024	0.0026	0.0028	0.0030	0.0031	0.0033
Med.	0.2575	0.5288	2803	0.0001	0.0003	0.0005	0.0007	0.0010	0.0011	0.0013	0.0015	0.0016	0.0018	0.0020	0.0022	0.0024	0.0026	0.0028	0.0030	0.0031	0.0033
St dev	0.0008	0.0022	11.3340	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2560	0.5247	2781	0.0001	0.0002	0.0004	0.0006	0.0008	0.0010	0.0012	0.0013	0.0015	0.0017	0.0018	0.0019	0.0021	0.0023	0.0024	0.0026	0.0027	0.0029
Max.	0.2589	0.5310	2830	0.0002	0.0004	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0018	0.0021	0.0022	0.0024	0.0026	0.0029	0.0032	0.0035	0.0036	0.0038

3.21 Data Set 5, 85°C, 500mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S101	448.4	100.04	99.88	99.66	99.42	99.18	98.88	98.75	98.61	98.43	98.31	98.18	98.05	97.93	97.87	97.80	97.74	97.69	97.58
S102	444.5	100.03	99.87	99.64	99.48	99.24	99.01	98.87	98.80	98.63	98.50	98.38	98.25	98.16	98.07	98.01	97.90	97.82	97.74
S103	443.4	100.10	99.96	99.71	99.47	99.24	99.01	98.81	98.74	98.56	98.43	98.31	98.18	98.08	98.02	97.93	97.82	97.74	97.64
S104	443.7	100.10	99.96	99.73	99.49	99.26	99.03	98.89	98.75	98.65	98.51	98.37	98.23	98.11	98.05	97.95	97.85	97.79	97.71
S105	445.7	100.04	99.89	99.66	99.49	99.25	99.03	98.83	98.69	98.58	98.45	98.33	98.20	98.10	98.04	97.95	97.85	97.77	97.69
S106	442.6	100.03	99.87	99.65	99.41	99.17	98.88	98.74	98.67	98.56	98.44	98.30	98.17	98.08	98.02	97.96	97.88	97.77	97.67
S107	443.8	100.06	99.90	99.65	99.49	99.25	98.95	98.75	98.68	98.50	98.36	98.24	98.10	97.97	97.91	97.82	97.71	97.65	97.58
S108	445.3	100.11	99.97	99.73	99.49	99.25	98.96	98.75	98.68	98.57	98.45	98.31	98.18	98.06	98.00	97.93	97.85	97.77	97.65
S109	443.0	100.08	99.92	99.67	99.51	99.27	99.04	98.91	98.76	98.59	98.47	98.33	98.20	98.11	98.05	97.96	97.90	97.80	97.72
S110	444.6	100.07	99.93	99.68	99.44	99.20	98.90	98.70	98.56	98.39	98.26	98.12	98.00	97.91	97.85	97.78	97.70	97.62	97.54
S111	444.1	100.06	99.93	99.68	99.51	99.35	99.12	98.92	98.78	98.61	98.47	98.34	98.21	98.12	98.06	98.00	97.91	97.83	97.75
S112	444.6	100.02	99.88	99.66	99.42	99.25	99.02	98.89	98.75	98.64	98.50	98.37	98.25	98.16	98.10	98.03	97.95	97.85	97.77
S113	445.3	100.10	99.94	99.71	99.55	99.38	99.08	98.95	98.87	98.70	98.56	98.44	98.31	98.19	98.12	98.06	98.00	97.94	97.84
S114	443.7	100.04	99.89	99.66	99.42	99.18	98.96	98.76	98.68	98.51	98.38	98.25	98.13	98.00	97.91	97.85	97.77	97.68	97.58
S115	443.3	100.05	99.91	99.69	99.52	99.35	99.05	98.85	98.78	98.67	98.53	98.41	98.27	98.15	98.09	98.02	97.92	97.81	97.71
S116	444.1	100.07	99.94	99.69	99.52	99.28	98.98	98.85	98.77	98.60	98.47	98.33	98.19	98.10	98.04	97.98	97.87	97.82	97.69
S117	445.4	100.11	99.97	99.72	99.52	99.28	99.02	98.79	98.63	98.46	98.33	98.19	98.07	97.95	97.85	97.76	97.70	97.63	97.52
S118	445.7	100.10	99.96	99.71	99.47	99.23	98.94	98.74	98.59	98.42	98.29	98.15	98.01	97.92	97.86	97.80	97.74	97.64	97.54
S119	444.1	100.06	99.92	99.68	99.44	99.20	98.98	98.77	98.63	98.53	98.40	98.28	98.14	98.04	97.95	97.89	97.81	97.75	97.65
S120	442.5	100.06	99.92	99.69	99.46	99.22	98.99	98.79	98.65	98.55	98.42	98.28	98.15	98.06	97.97	97.91	97.80	97.74	97.66
S121	443.9	100.08	99.94	99.71	99.47	99.31	99.08	98.88	98.80	98.70	98.56	98.43	98.31	98.22	98.16	98.09	97.99	97.91	97.78
S122	445.3	100.05	99.91	99.66	99.50	99.26	98.96	98.76	98.62	98.45	98.32	98.19	98.06	97.94	97.88	97.82	97.73	97.65	97.55
S123	443.3	100.04	99.90	99.66	99.49	99.25	98.95	98.75	98.61	98.44	98.31	98.17	98.03	97.90	97.84	97.75	97.64	97.56	97.48
S124	443.6	100.07	99.91	99.66	99.42	99.26	98.96	98.76	98.62	98.44	98.30	98.17	98.03	97.93	97.87	97.78	97.70	97.61	97.51
S125	444.5	100.03	99.89	99.64	99.40	99.24	98.94	98.74	98.60	98.43	98.30	98.17	98.04	97.95	97.86	97.80	97.74	97.66	97.56
Ave.	444.3	100.06	99.92	99.68	99.47	99.25	98.99	98.81	98.69	98.54	98.41	98.28	98.15	98.05	97.98	97.91	97.82	97.74	97.65
Med.	444.1	100.06	99.92	99.68	99.48	99.25	98.98	98.79	98.68	98.56	98.43	98.30	98.17	98.06	98.00	97.93	97.82	97.75	97.65
St dev	1.2506	0.0267	0.0306	0.0283	0.0402	0.0515	0.0617	0.0700	0.0827	0.0939	0.0910	0.0934	0.0943	0.0967	0.0996	0.1026	0.0986	0.0972	0.0961
Min.	442.5	100.02	99.87	99.64	99.40	99.17	98.88	98.70	98.56	98.39	98.26	98.12	98.00	97.90	97.84	97.75	97.64	97.56	97.48
Max.	448.4	100.11	99.97	99.73	99.55	99.38	99.12	98.95	98.87	98.70	98.56	98.44	98.31	98.22	98.16	98.09	98.00	97.94	97.84

3.22 Data Set 5, 85°C, 500mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S101	6.910	100.06	99.92	99.77	99.57	99.33	99.09	98.93	98.77	98.60	98.44	98.34	98.21	98.12	98.01	97.91	97.82	97.72	97.67
S102	6.838	100.06	99.93	99.78	99.56	99.32	99.10	98.94	98.75	98.62	98.47	98.34	98.22	98.12	98.03	97.93	97.87	97.81	97.75
S103	6.836	100.01	99.87	99.73	99.54	99.34	99.14	98.95	98.75	98.60	98.46	98.36	98.23	98.14	98.04	97.93	97.88	97.82	97.72
S104	6.836	100.01	99.88	99.74	99.52	99.30	99.07	98.89	98.73	98.59	98.44	98.31	98.19	98.09	98.00	97.90	97.84	97.75	97.69
S105	6.835	100.08	99.93	99.79	99.55	99.35	99.15	98.99	98.79	98.65	98.50	98.40	98.29	98.19	98.08	97.99	97.93	97.87	97.81
S106	6.837	100.05	99.92	99.78	99.54	99.34	99.12	98.95	98.79	98.63	98.48	98.38	98.25	98.16	98.06	97.97	97.91	97.82	97.76
S107	6.836	100.08	99.93	99.79	99.59	99.39	99.19	99.03	98.83	98.67	98.54	98.43	98.31	98.21	98.11	98.01	97.96	97.90	97.84
S108	6.836	100.02	99.88	99.74	99.52	99.32	99.09	98.89	98.72	98.59	98.43	98.33	98.22	98.13	98.03	97.93	97.83	97.77	97.68
S109	6.835	100.07	99.93	99.78	99.59	99.37	99.14	98.98	98.78	98.62	98.47	98.34	98.22	98.12	98.02	97.91	97.85	97.79	97.73
S110	6.836	100.01	99.86	99.72	99.49	99.26	99.06	98.89	98.71	98.55	98.40	98.27	98.15	98.04	97.94	97.85	97.79	97.69	97.64
S111	6.891	100.06	99.93	99.80	99.60	99.36	99.17	98.97	98.80	98.67	98.51	98.39	98.28	98.17	98.08	97.98	97.92	97.86	97.80
S112	6.894	100.04	99.91	99.77	99.55	99.35	99.15	98.99	98.82	98.69	98.53	98.41	98.30	98.21	98.11	98.01	97.92	97.86	97.79
S113	6.896	100.02	99.89	99.76	99.52	99.32	99.12	98.92	98.76	98.59	98.43	98.31	98.20	98.11	98.00	97.90	97.81	97.75	97.65
S114	6.894	100.00	99.85	99.71	99.51	99.27	99.05	98.86	98.66	98.53	98.37	98.27	98.14	98.05	97.95	97.86	97.80	97.75	97.65
S115	6.893	100.06	99.92	99.79	99.60	99.37	99.15	98.97	98.77	98.63	98.48	98.35	98.23	98.13	98.03	97.93	97.84	97.78	97.72
S116	6.893	99.99	99.85	99.72	99.48	99.26	99.03	98.87	98.67	98.51	98.36	98.23	98.13	98.04	97.93	97.83	97.77	97.71	97.66
S117	6.892	100.04	99.90	99.77	99.55	99.35	99.13	98.93	98.73	98.56	98.40	98.28	98.18	98.07	97.97	97.86	97.80	97.74	97.68
S118	6.891	100.07	99.92	99.78	99.58	99.34	99.12	98.92	98.76	98.60	98.47	98.34	98.24	98.14	98.03	97.93	97.87	97.82	97.72
S119	6.892	100.09	99.96	99.81	99.61	99.42	99.22	99.02	98.85	98.72	98.58	98.46	98.34	98.23	98.12	98.02	97.96	97.90	97.84
S120	6.891	100.05	99.90	99.77	99.57	99.33	99.11	98.95	98.79	98.61	98.46	98.35	98.23	98.14	98.03	97.93	97.87	97.78	97.71
S121	6.806	100.02	99.88	99.75	99.56	99.36	99.12	98.93	98.75	98.61	98.46	98.35	98.23	98.14	98.04	97.94	97.85	97.75	97.69
S122	6.808	99.99	99.86	99.73	99.51	99.31	99.07	98.87	98.67	98.50	98.35	98.22	98.10	98.00	97.89	97.79	97.73	97.67	97.61
S123	6.806	100.08	99.95	99.80	99.60	99.38	99.18	99.02	98.82	98.65	98.49	98.37	98.24	98.15	98.04	97.94	97.88	97.82	97.73
S124	6.804	100.08	99.95	99.80	99.60	99.38	99.14	98.98	98.78	98.65	98.51	98.41	98.28	98.17	98.06	97.96	97.87	97.81	97.71
S125	6.806	100.04	99.89	99.76	99.54	99.34	99.10	98.94	98.77	98.64	98.51	98.38	98.26	98.16	98.07	97.96	97.90	97.81	97.74
Ave.	6.856	100.04	99.90	99.77	99.55	99.34	99.12	98.94	98.76	98.61	98.46	98.35	98.23	98.13	98.03	97.93	97.86	97.79	97.72
Med.	6.837	100.05	99.91	99.77	99.55	99.34	99.12	98.94	98.77	98.61	98.47	98.35	98.23	98.14	98.03	97.93	97.87	97.79	97.72
St dev	0.0368	0.0305	0.0321	0.0296	0.0379	0.0397	0.0452	0.0474	0.0492	0.0532	0.0570	0.0585	0.0582	0.0570	0.0573	0.0574	0.0576	0.0602	0.0621
Min.	6.804	99.99	99.85	99.71	99.48	99.26	99.03	98.86	98.66	98.50	98.35	98.22	98.10	98.00	97.89	97.79	97.73	97.67	97.61
Max.	6.910	100.09	99.96	99.81	99.61	99.42	99.22	99.03	98.85	98.72	98.58	98.46	98.34	98.23	98.12	98.02	97.96	97.90	97.84

3.23 Data Set 5, 85°C, 500mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S101	0.4707	100.11	100.01	99.84	99.60	99.36	99.20	99.05	98.89	98.74	98.61	98.47	98.33	98.19	98.10	98.05	97.98	97.89	97.80
S102	0.4661	100.04	99.93	99.72	99.48	99.28	99.14	98.99	98.84	98.68	98.53	98.37	98.25	98.11	98.05	97.97	97.88	97.79	97.73
S103	0.4661	100.04	99.89	99.68	99.48	99.24	99.08	98.94	98.76	98.62	98.46	98.35	98.21	98.07	98.01	97.93	97.84	97.78	97.72
S104	0.4657	100.12	100.01	99.80	99.60	99.40	99.24	99.09	98.94	98.76	98.63	98.51	98.41	98.34	98.29	98.23	98.14	98.05	97.96
S105	0.4657	100.09	99.98	99.78	99.57	99.35	99.17	99.04	98.86	98.68	98.52	98.39	98.28	98.22	98.13	98.07	97.98	97.90	97.80
S106	0.4658	100.09	99.95	99.74	99.49	99.27	99.13	98.98	98.84	98.68	98.52	98.37	98.27	98.13	98.07	97.94	97.85	97.76	97.67
S107	0.4661	100.10	100.00	99.83	99.61	99.41	99.27	99.12	98.96	98.77	98.66	98.53	98.40	98.26	98.13	98.05	97.99	97.90	97.81
S108	0.4659	100.10	100.00	99.79	99.55	99.31	99.15	99.02	98.83	98.67	98.54	98.42	98.32	98.22	98.14	98.08	97.99	97.93	97.83
S109	0.4656	100.07	99.92	99.72	99.47	99.23	99.07	98.94	98.80	98.65	98.50	98.36	98.24	98.10	97.97	97.89	97.79	97.70	97.64
S110	0.4661	100.09	99.94	99.73	99.53	99.31	99.17	99.02	98.83	98.67	98.52	98.40	98.26	98.16	98.04	97.95	97.86	97.77	97.68
S111	0.4635	100.09	99.98	99.77	99.57	99.33	99.15	98.99	98.85	98.69	98.54	98.40	98.26	98.19	98.10	98.04	97.98	97.89	97.80
S112	0.4635	100.11	99.97	99.80	99.58	99.34	99.16	99.04	98.88	98.72	98.57	98.41	98.29	98.15	98.06	97.98	97.89	97.83	97.77
S113	0.4635	100.07	99.92	99.76	99.56	99.34	99.16	99.02	98.88	98.72	98.58	98.45	98.31	98.21	98.08	97.95	97.86	97.80	97.71
S114	0.4635	100.04	99.89	99.73	99.49	99.27	99.11	98.95	98.81	98.67	98.51	98.36	98.26	98.19	98.06	98.00	97.91	97.83	97.74
S115	0.4637	100.09	99.94	99.73	99.53	99.33	99.19	99.03	98.89	98.75	98.59	98.46	98.33	98.24	98.18	98.12	98.03	97.97	97.88
S116	0.4637	100.04	99.89	99.68	99.46	99.24	99.10	98.95	98.77	98.61	98.49	98.38	98.28	98.14	98.05	98.00	97.90	97.84	97.75
S117	0.4633	100.04	99.90	99.73	99.53	99.33	99.19	99.03	98.85	98.71	98.55	98.42	98.29	98.15	98.07	97.94	97.85	97.76	97.70
S118	0.4634	100.05	99.95	99.74	99.54	99.32	99.18	99.02	98.84	98.70	98.58	98.47	98.37	98.23	98.17	98.12	98.03	97.97	97.88
S119	0.4631	100.12	100.01	99.85	99.60	99.40	99.22	99.09	98.93	98.77	98.61	98.46	98.34	98.27	98.14	98.05	97.96	97.90	97.81
S120	0.4630	100.05	99.95	99.74	99.52	99.32	99.14	99.00	98.84	98.68	98.57	98.42	98.27	98.21	98.12	98.03	97.94	97.88	97.79
S121	0.4623	100.09	99.99	99.82	99.62	99.40	99.22	99.09	98.90	98.74	98.59	98.48	98.37	98.31	98.22	98.13	98.07	97.98	97.89
S122	0.4624	100.03	99.93	99.72	99.48	99.26	99.07	98.94	98.80	98.66	98.54	98.41	98.26	98.13	98.04	97.95	97.86	97.80	97.71
S123	0.4627	100.08	99.93	99.72	99.50	99.28	99.10	98.97	98.78	98.62	98.51	98.35	98.23	98.16	98.03	97.95	97.89	97.82	97.73
S124	0.4624	100.09	99.99	99.78	99.58	99.34	99.15	99.04	98.90	98.74	98.62	98.51	98.39	98.32	98.23	98.17	98.11	98.03	97.93
S125	0.4624	100.04	99.89	99.69	99.48	99.24	99.06	98.91	98.76	98.62	98.48	98.37	98.27	98.20	98.07	98.02	97.96	97.86	97.78
Ave.	0.4644	100.08	99.95	99.76	99.54	99.32	99.15	99.01	98.85	98.69	98.55	98.42	98.30	98.20	98.10	98.02	97.94	97.86	97.78
Med.	0.4635	100.09	99.95	99.74	99.53	99.32	99.15	99.02	98.84	98.68	98.54	98.41	98.28	98.19	98.08	98.02	97.94	97.86	97.78
St dev	0.0019	0.0286	0.0411	0.0492	0.0505	0.0544	0.0549	0.0543	0.0545	0.0489	0.0504	0.0527	0.0553	0.0687	0.0733	0.0850	0.0896	0.0885	0.0823
Min.	0.4623	100.03	99.89	99.68	99.46	99.23	99.06	98.91	98.76	98.61	98.46	98.35	98.21	98.07	97.97	97.89	97.79	97.70	97.64
Max.	0.4707	100.12	100.01	99.85	99.62	99.41	99.27	99.12	98.96	98.77	98.66	98.53	98.41	98.34	98.29	98.23	98.14	98.05	97.96

3.24 Data Set 5, 85°C, 500mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S101	5.863	5.867	5.870	5.869	5.870	5.867	5.865	5.859	5.860	5.855	5.859	5.853	5.853	5.847	5.850	5.848	5.840	5.842	5.844
S102	5.852	5.867	5.857	5.861	5.855	5.855	5.855	5.850	5.847	5.841	5.848	5.837	5.837	5.840	5.834	5.839	5.837	5.831	5.823
S103	5.858	5.834	5.830	5.831	5.830	5.825	5.821	5.823	5.818	5.815	5.812	5.817	5.813	5.807	5.808	5.806	5.799	5.798	5.802
S104	5.859	5.879	5.876	5.881	5.874	5.873	5.875	5.870	5.867	5.866	5.868	5.863	5.856	5.857	5.856	5.851	5.853	5.847	5.847
S105	5.855	5.858	5.858	5.860	5.856	5.857	5.856	5.854	5.854	5.848	5.850	5.848	5.837	5.842	5.838	5.837	5.837	5.831	5.831
S106	5.871	5.869	5.869	5.867	5.864	5.861	5.860	5.853	5.852	5.856	5.852	5.849	5.847	5.844	5.847	5.844	5.845	5.839	5.835
S107	5.853	5.870	5.877	5.874	5.869	5.869	5.869	5.864	5.862	5.864	5.860	5.857	5.856	5.853	5.854	5.849	5.852	5.846	5.843
S108	5.850	5.863	5.867	5.864	5.862	5.858	5.858	5.855	5.856	5.853	5.848	5.847	5.846	5.844	5.836	5.833	5.832	5.836	5.836
S109	5.865	5.858	5.855	5.857	5.857	5.848	5.849	5.848	5.846	5.848	5.840	5.843	5.841	5.836	5.836	5.836	5.828	5.828	5.826
S110	5.821	5.863	5.864	5.862	5.867	5.862	5.861	5.857	5.858	5.856	5.847	5.853	5.843	5.844	5.843	5.841	5.836	5.836	5.836
S111	5.861	5.859	5.852	5.853	5.855	5.850	5.849	5.844	5.842	5.844	5.837	5.836	5.831	5.834	5.827	5.834	5.830	5.828	5.817
S112	5.851	5.849	5.858	5.846	5.846	5.847	5.841	5.840	5.839	5.838	5.835	5.831	5.834	5.830	5.831	5.823	5.827	5.824	5.824
S113	5.821	5.847	5.847	5.838	5.843	5.838	5.834	5.831	5.833	5.830	5.830	5.823	5.828	5.816	5.824	5.822	5.817	5.811	5.806
S114	5.857	5.861	5.861	5.852	5.852	5.852	5.852	5.851	5.850	5.848	5.844	5.842	5.839	5.837	5.831	5.836	5.826	5.820	5.831
S115	5.864	5.852	5.847	5.848	5.845	5.845	5.845	5.842	5.836	5.833	5.833	5.832	5.834	5.830	5.829	5.821	5.821	5.823	5.817
S116	5.857	5.847	5.853	5.849	5.843	5.844	5.843	5.840	5.838	5.830	5.832	5.834	5.829	5.829	5.823	5.823	5.827	5.820	5.821
S117	5.849	5.845	5.842	5.841	5.846	5.836	5.840	5.836	5.834	5.835	5.835	5.825	5.830	5.822	5.825	5.820	5.819	5.819	5.819
S118	5.854	5.818	5.817	5.809	5.808	5.808	5.803	5.801	5.804	5.796	5.797	5.793	5.798	5.790	5.791	5.783	5.790	5.781	5.776
S119	5.852	5.843	5.843	5.838	5.842	5.838	5.838	5.836	5.831	5.832	5.828	5.827	5.827	5.823	5.823	5.822	5.813	5.817	5.811
S120	5.868	5.867	5.868	5.857	5.858	5.858	5.857	5.854	5.851	5.849	5.846	5.845	5.839	5.843	5.842	5.832	5.834	5.835	5.833
S121	5.876	5.850	5.848	5.844	5.841	5.839	5.840	5.835	5.833	5.836	5.834	5.829	5.821	5.824	5.822	5.817	5.820	5.816	5.808
S122	5.865	5.817	5.817	5.814	5.814	5.807	5.808	5.807	5.800	5.800	5.803	5.796	5.790	5.792	5.791	5.783	5.783	5.779	5.784
S123	5.871	5.848	5.843	5.845	5.838	5.839	5.839	5.837	5.830	5.831	5.834	5.826	5.820	5.819	5.824	5.817	5.818	5.814	5.813
S124	5.867	5.868	5.859	5.863	5.857	5.858	5.857	5.853	5.853	5.846	5.843	5.846	5.842	5.840	5.835	5.841	5.832	5.833	5.835
S125	5.865	5.851	5.850	5.844	5.846	5.840	5.840	5.832	5.833	5.835	5.835	5.822	5.828	5.822	5.822	5.817	5.824	5.819	5.816
Ave.	5.857	5.854	5.853	5.851	5.849	5.847	5.846	5.843	5.841	5.839	5.838	5.835	5.833	5.831	5.830	5.827	5.825	5.823	5.821
Med.	5.858	5.858	5.855	5.852	5.852	5.848	5.849	5.844	5.842	5.841	5.837	5.836	5.834	5.834	5.831	5.832	5.827	5.824	5.823
St dev	0.0131	0.0153	0.0158	0.0168	0.0160	0.0166	0.0172	0.0162	0.0167	0.0172	0.0164	0.0171	0.0159	0.0168	0.0163	0.0177	0.0168	0.0172	0.0174
Min.	5.821	5.817	5.817	5.809	5.808	5.807	5.803	5.801	5.800	5.796	5.797	5.793	5.790	5.790	5.791	5.783	5.783	5.779	5.776
Max.	5.876	5.879	5.877	5.881	5.874	5.873	5.875	5.870	5.867	5.866	5.868	5.863	5.856	5.857	5.856	5.851	5.853	5.847	5.847

3.25 Data Set 5, 85°C, 500mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S101	0.2569	0.5286	2813	0.0002	0.0004	0.0005	0.0008	0.0012	0.0015	0.0016	0.0018	0.0020	0.0022	0.0024	0.0026	0.0027	0.0029	0.0032	0.0033	0.0034	0.0037
S102	0.2567	0.5283	2820	0.0001	0.0004	0.0006	0.0009	0.0013	0.0015	0.0017	0.0019	0.0021	0.0023	0.0025	0.0027	0.0030	0.0032	0.0034	0.0035	0.0036	0.0038
S103	0.2568	0.5289	2813	0.0002	0.0005	0.0006	0.0009	0.0013	0.0016	0.0017	0.0019	0.0021	0.0022	0.0024	0.0027	0.0030	0.0031	0.0033	0.0034	0.0036	0.0038
S104	0.2567	0.5282	2819	0.0002	0.0005	0.0006	0.0008	0.0010	0.0011	0.0014	0.0016	0.0017	0.0020	0.0021	0.0024	0.0025	0.0027	0.0028	0.0030	0.0032	0.0034
S105	0.2569	0.5299	2807	0.0002	0.0004	0.0006	0.0008	0.0012	0.0013	0.0015	0.0018	0.0021	0.0023	0.0025	0.0027	0.0030	0.0032	0.0034	0.0036	0.0038	0.0039
S106	0.2566	0.5283	2822	0.0002	0.0004	0.0005	0.0007	0.0010	0.0011	0.0014	0.0017	0.0019	0.0020	0.0021	0.0024	0.0025	0.0028	0.0031	0.0032	0.0034	0.0036
S107	0.2572	0.5300	2801	0.0001	0.0004	0.0006	0.0007	0.0009	0.0012	0.0015	0.0017	0.0019	0.0022	0.0024	0.0026	0.0029	0.0032	0.0034	0.0035	0.0036	0.0038
S108	0.2575	0.5296	2796	0.0002	0.0005	0.0006	0.0008	0.0012	0.0015	0.0018	0.0020	0.0022	0.0025	0.0027	0.0029	0.0031	0.0033	0.0035	0.0036	0.0038	0.0040
S109	0.2571	0.5291	2807	0.0002	0.0004	0.0006	0.0009	0.0012	0.0015	0.0018	0.0021	0.0022	0.0025	0.0027	0.0030	0.0031	0.0034	0.0036	0.0037	0.0038	0.0040
S110	0.2570	0.5284	2813	0.0001	0.0003	0.0006	0.0008	0.0011	0.0012	0.0014	0.0018	0.0020	0.0023	0.0026	0.0028	0.0030	0.0032	0.0033	0.0035	0.0037	0.0038
S111	0.2582	0.5243	2805	0.0002	0.0005	0.0007	0.0009	0.0013	0.0015	0.0018	0.0020	0.0022	0.0025	0.0027	0.0029	0.0031	0.0033	0.0034	0.0036	0.0037	0.0039
S112	0.2580	0.5239	2812	0.0002	0.0005	0.0007	0.0010	0.0013	0.0015	0.0017	0.0019	0.0022	0.0024	0.0027	0.0029	0.0031	0.0033	0.0036	0.0037	0.0039	0.0040
S113	0.2583	0.5240	2805	0.0002	0.0004	0.0006	0.0007	0.0009	0.0010	0.0013	0.0016	0.0019	0.0021	0.0024	0.0027	0.0029	0.0030	0.0033	0.0035	0.0036	0.0038
S114	0.2583	0.5245	2803	0.0002	0.0005	0.0007	0.0008	0.0011	0.0013	0.0014	0.0017	0.0019	0.0021	0.0023	0.0024	0.0026	0.0029	0.0031	0.0032	0.0034	0.0037
S115	0.2585	0.5247	2796	0.0001	0.0004	0.0006	0.0009	0.0012	0.0014	0.0017	0.0020	0.0023	0.0024	0.0027	0.0029	0.0032	0.0033	0.0035	0.0036	0.0038	0.0040
S116	0.2581	0.5237	2809	0.0001	0.0003	0.0005	0.0007	0.0011	0.0013	0.0015	0.0019	0.0020	0.0023	0.0024	0.0025	0.0028	0.0030	0.0033	0.0034	0.0036	0.0037
S117	0.2589	0.5252	2786	0.0001	0.0004	0.0006	0.0007	0.0010	0.0013	0.0014	0.0016	0.0019	0.0020	0.0023	0.0024	0.0027	0.0030	0.0033	0.0034	0.0036	0.0038
S118	0.2583	0.5254	2798	0.0002	0.0004	0.0005	0.0008	0.0010	0.0013	0.0016	0.0018	0.0020	0.0022	0.0024	0.0026	0.0028	0.0030	0.0031	0.0034	0.0036	0.0037
S119	0.2587	0.5256	2789	0.0001	0.0003	0.0005	0.0007	0.0011	0.0013	0.0014	0.0017	0.0018	0.0019	0.0022	0.0024	0.0026	0.0027	0.0030	0.0031	0.0032	0.0034
S120	0.2580	0.5239	2812	0.0001	0.0004	0.0006	0.0008	0.0012	0.0014	0.0016	0.0020	0.0022	0.0025	0.0026	0.0028	0.0031	0.0033	0.0035	0.0036	0.0037	0.0039
S121	0.2565	0.5298	2816	0.0001	0.0004	0.0005	0.0008	0.0012	0.0015	0.0017	0.0020	0.0022	0.0024	0.0027	0.0029	0.0032	0.0034	0.0036	0.0038	0.0039	0.0040
S122	0.2571	0.5308	2799	0.0002	0.0005	0.0006	0.0008	0.0012	0.0013	0.0016	0.0019	0.0022	0.0023	0.0025	0.0028	0.0030	0.0031	0.0033	0.0034	0.0036	0.0037
S123	0.2566	0.5300	2815	0.0002	0.0005	0.0006	0.0009	0.0012	0.0014	0.0015	0.0017	0.0020	0.0022	0.0025	0.0027	0.0029	0.0031	0.0034	0.0035	0.0037	0.0038
S124	0.2569	0.5312	2801	0.0002	0.0004	0.0006	0.0008	0.0011	0.0012	0.0013	0.0015	0.0018	0.0019	0.0022	0.0024	0.0025	0.0028	0.0030	0.0031	0.0033	0.0035
S125	0.2562	0.5295	2824	0.0002	0.0004	0.0006	0.0009	0.0012	0.0015	0.0018	0.0021	0.0024	0.0026	0.0028	0.0031	0.0034	0.0036	0.0038	0.0039	0.0041	0.0043
Ave.	0.2574	0.5274	2807	0.0002	0.0004	0.0006	0.0008	0.0011	0.0014	0.0016	0.0018	0.0020	0.0022	0.0025	0.0027	0.0029	0.0031	0.0033	0.0035	0.0036	0.0038
Med.	0.2571	0.5283	2807	0.0002	0.0004	0.0006	0.0008	0.0012	0.0013	0.0016	0.0018	0.0020	0.0023	0.0025	0.0027	0.0030	0.0031	0.0033	0.0035	0.0036	0.0038
St dev	0.0008	0.0026	9.9594	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2562	0.5237	2786	0.0001	0.0003	0.0005	0.0007	0.0009	0.0010	0.0013	0.0015	0.0017	0.0019	0.0021	0.0024	0.0025	0.0027	0.0028	0.0030	0.0032	0.0034
Max.	0.2589	0.5312	2824	0.0002	0.0005	0.0007	0.0010	0.0013	0.0016	0.0018	0.0021	0.0024	0.0026	0.0028	0.0031	0.0034	0.0036	0.0038	0.0039	0.0041	0.0043

3.26 Data Set 6, 105°C, 500mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S126	444.4	99.92	99.72	99.44	99.18	98.92	98.59	98.34	98.12	97.91	97.80	97.69	97.58	97.48	97.37	97.30	97.20	97.09	97.01
S127	444.7	99.97	99.81	99.53	99.27	99.01	98.74	98.50	98.27	98.11	97.96	97.85	97.75	97.65	97.53	97.45	97.34	97.24	97.17
S128	445.5	100.00	99.80	99.52	99.27	99.01	98.74	98.55	98.32	98.16	98.04	97.94	97.83	97.73	97.63	97.55	97.44	97.35	97.24
S129	443.1	99.98	99.78	99.54	99.28	99.02	98.69	98.43	98.20	98.05	97.92	97.81	97.71	97.60	97.49	97.40	97.30	97.19	97.10
S130	444.5	100.04	99.88	99.60	99.34	99.08	98.75	98.56	98.40	98.17	98.06	97.92	97.80	97.69	97.58	97.49	97.37	97.25	97.18
S131	444.0	100.02	99.82	99.54	99.28	99.02	98.69	98.50	98.29	98.06	97.91	97.76	97.62	97.50	97.40	97.32	97.21	97.11	97.04
S132	443.4	99.95	99.75	99.47	99.21	99.01	98.68	98.49	98.27	98.05	97.94	97.79	97.65	97.53	97.43	97.35	97.26	97.14	97.05
S133	446.2	99.93	99.76	99.52	99.26	99.00	98.67	98.41	98.26	98.04	97.92	97.82	97.67	97.55	97.45	97.38	97.26	97.15	97.06
S134	445.8	99.96	99.80	99.55	99.29	99.03	98.76	98.57	98.36	98.20	98.08	97.97	97.87	97.76	97.66	97.58	97.47	97.37	97.28
S135	444.0	100.04	99.84	99.56	99.30	99.04	98.77	98.58	98.36	98.14	97.99	97.88	97.74	97.63	97.53	97.46	97.34	97.25	97.17
S136	443.4	99.93	99.73	99.45	99.19	98.93	98.60	98.34	98.13	97.91	97.80	97.66	97.54	97.44	97.33	97.26	97.16	97.07	96.96
S137	443.5	100.03	99.86	99.62	99.36	99.10	98.77	98.53	98.30	98.07	97.95	97.84	97.69	97.59	97.47	97.40	97.28	97.16	97.06
S138	444.7	99.95	99.75	99.47	99.27	99.07	98.80	98.62	98.39	98.16	98.01	97.90	97.79	97.69	97.57	97.48	97.35	97.23	97.12
S139	442.6	99.94	99.74	99.50	99.24	99.04	98.77	98.53	98.30	98.07	97.96	97.85	97.75	97.63	97.52	97.44	97.32	97.20	97.13
S140	443.0	100.03	99.83	99.59	99.33	99.13	98.80	98.61	98.40	98.17	98.01	97.91	97.80	97.68	97.58	97.50	97.39	97.29	97.22
S141	445.1	100.02	99.82	99.58	99.32	99.06	98.73	98.47	98.24	98.03	97.91	97.76	97.66	97.55	97.44	97.36	97.25	97.12	97.05
S142	443.5	99.93	99.76	99.48	99.28	99.08	98.81	98.62	98.41	98.20	98.08	97.96	97.85	97.75	97.64	97.57	97.47	97.34	97.27
S143	444.3	99.99	99.79	99.55	99.35	99.09	98.82	98.63	98.47	98.26	98.15	98.03	97.89	97.79	97.68	97.61	97.50	97.40	97.31
S144	443.9	99.94	99.74	99.49	99.23	99.03	98.70	98.45	98.22	98.06	97.91	97.80	97.69	97.59	97.47	97.38	97.27	97.16	97.06
S145	442.2	99.95	99.79	99.54	99.28	99.03	98.76	98.57	98.36	98.14	98.03	97.93	97.82	97.72	97.60	97.53	97.40	97.30	97.23
S146	444.5	100.00	99.80	99.56	99.30	99.04	98.71	98.45	98.23	98.00	97.84	97.74	97.63	97.52	97.40	97.33	97.20	97.09	96.98
S147	445.4	99.98	99.78	99.54	99.34	99.14	98.81	98.55	98.34	98.11	97.96	97.84	97.74	97.64	97.52	97.43	97.32	97.22	97.15
S148	446.3	100.03	99.83	99.55	99.35	99.09	98.82	98.64	98.41	98.25	98.10	97.95	97.84	97.74	97.63	97.56	97.47	97.35	97.28
S149	445.7	100.03	99.83	99.58	99.32	99.06	98.73	98.55	98.33	98.12	98.01	97.86	97.72	97.61	97.50	97.41	97.31	97.22	97.11
S150	443.9	99.98	99.78	99.50	99.24	98.98	98.65	98.40	98.18	98.02	97.90	97.79	97.64	97.54	97.42	97.34	97.24	97.13	97.02
Ave.	444.3	99.98	99.79	99.53	99.28	99.04	98.73	98.52	98.30	98.10	97.97	97.85	97.73	97.62	97.51	97.44	97.33	97.22	97.13
Med.	444.3	99.98	99.79	99.54	99.28	99.04	98.74	98.53	98.30	98.11	97.96	97.85	97.74	97.63	97.52	97.43	97.32	97.22	97.12
St dev	1.1058	0.0405	0.0413	0.0461	0.0492	0.0527	0.0640	0.0870	0.0910	0.0903	0.0890	0.0909	0.0937	0.0948	0.0960	0.0967	0.0946	0.0971	0.1007
Min.	442.2	99.92	99.72	99.44	99.18	98.92	98.59	98.34	98.12	97.91	97.80	97.66	97.54	97.44	97.33	97.26	97.16	97.07	96.96
Max.	446.3	100.04	99.88	99.62	99.36	99.14	98.82	98.64	98.47	98.26	98.15	98.03	97.89	97.79	97.68	97.61	97.50	97.40	97.31

3.27 Data Set 6, 105°C, 500mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S126	6.849	99.92	99.71	99.51	99.27	99.08	98.86	98.63	98.37	98.23	98.08	97.93	97.80	97.69	97.58	97.48	97.39	97.33	97.27
S127	6.849	99.94	99.73	99.50	99.28	99.02	98.74	98.53	98.28	98.13	97.98	97.89	97.77	97.64	97.56	97.45	97.36	97.27	97.19
S128	6.849	99.96	99.75	99.55	99.32	99.12	98.91	98.72	98.45	98.27	98.13	98.04	97.93	97.82	97.71	97.61	97.52	97.46	97.41
S129	6.847	100.00	99.82	99.58	99.37	99.17	98.89	98.70	98.43	98.28	98.13	98.03	97.91	97.77	97.66	97.55	97.46	97.41	97.35
S130	6.845	99.96	99.75	99.51	99.28	99.09	98.81	98.60	98.35	98.18	98.02	97.86	97.73	97.62	97.55	97.47	97.35	97.30	97.24
S131	6.847	99.93	99.76	99.52	99.30	99.09	98.88	98.65	98.40	98.26	98.12	98.02	97.89	97.78	97.68	97.57	97.49	97.43	97.37
S132	6.845	100.00	99.82	99.62	99.39	99.13	98.85	98.62	98.36	98.21	98.06	97.96	97.77	97.63	97.53	97.42	97.33	97.28	97.19
S133	6.846	99.98	99.81	99.61	99.39	99.19	98.98	98.78	98.55	98.41	98.20	98.11	97.98	97.84	97.74	97.66	97.58	97.52	97.43
S134	6.845	99.91	99.74	99.54	99.32	99.11	98.89	98.68	98.45	98.30	98.08	97.92	97.73	97.63	97.52	97.44	97.32	97.26	97.21
S135	6.844	99.91	99.74	99.53	99.25	98.99	98.76	98.54	98.29	98.15	98.01	97.91	97.79	97.65	97.55	97.44	97.35	97.30	97.24
S136	6.841	99.92	99.71	99.47	99.19	98.93	98.65	98.46	98.21	98.06	97.90	97.80	97.68	97.55	97.44	97.33	97.25	97.16	97.10
S137	6.843	99.93	99.72	99.51	99.23	99.04	98.76	98.55	98.32	98.16	98.02	97.94	97.81	97.70	97.60	97.52	97.40	97.35	97.29
S138	6.843	99.93	99.76	99.55	99.32	99.13	98.85	98.62	98.39	98.21	98.07	97.91	97.78	97.65	97.54	97.43	97.31	97.25	97.20
S139	6.842	100.00	99.83	99.63	99.39	99.18	98.90	98.68	98.41	98.23	98.02	97.92	97.73	97.59	97.48	97.37	97.26	97.17	97.11
S140	6.844	99.97	99.76	99.52	99.24	99.03	98.80	98.59	98.36	98.20	98.04	97.89	97.76	97.65	97.55	97.44	97.35	97.30	97.24
S141	6.843	99.95	99.74	99.54	99.31	99.05	98.77	98.56	98.29	98.14	97.98	97.88	97.77	97.63	97.52	97.44	97.36	97.30	97.21
S142	6.843	99.98	99.77	99.57	99.33	99.12	98.91	98.72	98.45	98.29	98.14	97.98	97.86	97.76	97.65	97.54	97.45	97.36	97.27
S143	6.843	99.97	99.76	99.52	99.29	99.08	98.85	98.66	98.41	98.24	98.09	97.94	97.81	97.67	97.56	97.45	97.33	97.28	97.22
S144	6.844	99.98	99.77	99.54	99.26	99.06	98.84	98.65	98.40	98.25	98.09	97.93	97.80	97.66	97.55	97.48	97.36	97.30	97.21
S145	6.845	99.95	99.78	99.57	99.36	99.10	98.88	98.67	98.41	98.25	98.03	97.93	97.82	97.68	97.58	97.47	97.35	97.27	97.21
S146	6.876	99.96	99.75	99.54	99.33	99.12	98.89	98.68	98.45	98.31	98.16	98.01	97.88	97.77	97.66	97.56	97.44	97.35	97.29
S147	6.876	99.93	99.76	99.52	99.30	99.10	98.87	98.65	98.42	98.24	98.08	98.00	97.88	97.78	97.67	97.56	97.48	97.42	97.36
S148	6.875	99.97	99.76	99.52	99.30	99.09	98.86	98.65	98.42	98.28	98.14	98.06	97.94	97.84	97.73	97.65	97.54	97.48	97.42
S149	6.874	99.99	99.81	99.57	99.29	99.10	98.88	98.69	98.44	98.27	98.05	97.97	97.78	97.64	97.57	97.46	97.37	97.29	97.20
S150	6.874	99.94	99.73	99.52	99.31	99.11	98.89	98.69	98.46	98.30	98.14	98.04	97.93	97.79	97.68	97.57	97.45	97.36	97.31
Ave.	6.851	99.95	99.76	99.54	99.31	99.09	98.85	98.64	98.39	98.23	98.07	97.95	97.82	97.70	97.59	97.50	97.39	97.33	97.26
Med.	6.845	99.96	99.76	99.54	99.30	99.10	98.86	98.65	98.41	98.24	98.08	97.94	97.80	97.67	97.57	97.47	97.36	97.30	97.24
St dev	0.0125	0.0282	0.0346	0.0381	0.0503	0.0585	0.0692	0.0714	0.0723	0.0731	0.0681	0.0721	0.0782	0.0822	0.0800	0.0817	0.0835	0.0881	0.0887
Min.	6.841	99.91	99.71	99.47	99.19	98.93	98.65	98.46	98.21	98.06	97.90	97.80	97.68	97.55	97.44	97.33	97.25	97.16	97.10
Max.	6.876	100.00	99.83	99.63	99.39	99.19	98.98	98.78	98.55	98.41	98.20	98.11	97.98	97.84	97.74	97.66	97.58	97.52	97.43

3.28 Data Set 6, 105°C, 500mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S126	0.4673	99.96	99.79	99.55	99.28	99.02	98.78	98.57	98.39	98.19	98.05	97.92	97.79	97.67	97.57	97.50	97.44	97.37	97.25
S127	0.4671	100.02	99.85	99.62	99.35	99.09	98.85	98.62	98.42	98.24	98.11	97.98	97.84	97.73	97.62	97.55	97.49	97.40	97.28
S128	0.4670	99.93	99.75	99.50	99.24	98.97	98.74	98.51	98.33	98.13	98.00	97.86	97.72	97.62	97.48	97.39	97.29	97.22	97.17
S129	0.4670	99.97	99.80	99.57	99.30	99.03	98.80	98.59	98.41	98.23	98.09	97.95	97.82	97.68	97.53	97.46	97.35	97.28	97.23
S130	0.4671	100.03	99.84	99.60	99.34	99.07	98.83	98.62	98.43	98.25	98.11	97.97	97.83	97.72	97.58	97.50	97.46	97.39	97.32
S131	0.4667	99.94	99.77	99.54	99.27	99.01	98.77	98.56	98.38	98.20	98.07	97.92	97.79	97.68	97.58	97.50	97.39	97.32	97.25
S132	0.4668	100.02	99.83	99.59	99.32	99.06	98.82	98.59	98.42	98.24	98.10	97.96	97.82	97.71	97.60	97.52	97.48	97.34	97.22
S133	0.4668	99.96	99.78	99.53	99.27	99.00	98.77	98.54	98.36	98.18	98.05	97.92	97.79	97.65	97.50	97.39	97.33	97.24	97.12
S134	0.4665	100.01	99.84	99.60	99.33	99.06	98.83	98.62	98.42	98.22	98.09	97.95	97.82	97.72	97.62	97.54	97.44	97.37	97.25
S135	0.4666	100.01	99.83	99.60	99.33	99.07	98.83	98.62	98.44	98.26	98.12	97.99	97.85	97.71	97.59	97.48	97.42	97.28	97.23
S136	0.4657	99.94	99.77	99.53	99.26	99.00	98.76	98.53	98.35	98.17	98.04	97.90	97.76	97.66	97.52	97.43	97.39	97.32	97.27
S137	0.4661	99.99	99.82	99.57	99.31	99.04	98.81	98.60	98.42	98.22	98.08	97.94	97.80	97.66	97.51	97.44	97.38	97.29	97.24
S138	0.4658	99.98	99.79	99.56	99.29	99.03	98.79	98.56	98.36	98.19	98.06	97.92	97.78	97.67	97.57	97.49	97.43	97.29	97.22
S139	0.4661	100.00	99.82	99.57	99.31	99.04	98.81	98.60	98.42	98.22	98.08	97.94	97.81	97.67	97.57	97.48	97.43	97.29	97.17
S140	0.4659	100.03	99.86	99.62	99.35	99.09	98.85	98.64	98.44	98.26	98.12	97.98	97.84	97.74	97.63	97.52	97.47	97.34	97.22
S141	0.4661	99.96	99.78	99.54	99.28	99.01	98.78	98.57	98.39	98.19	98.05	97.91	97.77	97.62	97.52	97.41	97.35	97.26	97.14
S142	0.4659	100.01	99.82	99.58	99.31	99.05	98.81	98.60	98.42	98.24	98.10	97.96	97.83	97.72	97.58	97.50	97.46	97.39	97.27
S143	0.4660	99.93	99.76	99.52	99.25	98.98	98.75	98.54	98.36	98.18	98.05	97.92	97.79	97.65	97.50	97.42	97.36	97.22	97.15
S144	0.4659	99.97	99.80	99.55	99.29	99.02	98.79	98.56	98.36	98.18	98.05	97.91	97.77	97.67	97.56	97.48	97.42	97.28	97.23
S145	0.4663	99.97	99.80	99.57	99.30	99.04	98.80	98.59	98.41	98.23	98.10	97.96	97.83	97.72	97.62	97.50	97.40	97.31	97.19
S146	0.4722	99.97	99.80	99.57	99.30	99.04	98.80	98.59	98.41	98.23	98.09	97.95	97.81	97.67	97.56	97.49	97.43	97.29	97.24
S147	0.4717	99.99	99.81	99.58	99.31	99.04	98.81	98.60	98.42	98.24	98.11	97.97	97.83	97.68	97.57	97.50	97.46	97.37	97.25
S148	0.4716	99.96	99.77	99.54	99.28	99.01	98.78	98.57	98.39	98.21	98.08	97.94	97.81	97.66	97.55	97.47	97.36	97.27	97.16
S149	0.4716	99.98	99.81	99.57	99.31	99.05	98.81	98.60	98.40	98.22	98.08	97.95	97.81	97.69	97.58	97.51	97.47	97.40	97.34
S150	0.4719	99.95	99.76	99.53	99.27	99.00	98.77	98.56	98.36	98.16	98.02	97.89	97.76	97.62	97.51	97.44	97.33	97.26	97.15
Ave.	0.4675	99.98	99.80	99.56	99.30	99.03	98.80	98.58	98.40	98.21	98.08	97.94	97.80	97.68	97.56	97.48	97.41	97.31	97.22
Med.	0.4667	99.97	99.80	99.57	99.30	99.04	98.80	98.59	98.41	98.22	98.08	97.94	97.81	97.67	97.57	97.49	97.42	97.29	97.23
St dev	0.0022	0.0303	0.0302	0.0299	0.0299	0.0300	0.0299	0.0325	0.0305	0.0328	0.0312	0.0303	0.0305	0.0353	0.0418	0.0433	0.0535	0.0541	0.0556
Min.	0.4657	99.93	99.75	99.50	99.24	98.97	98.74	98.51	98.33	98.13	98.00	97.86	97.72	97.62	97.48	97.39	97.29	97.22	97.12
Max.	0.4722	100.03	99.86	99.62	99.35	99.09	98.85	98.64	98.44	98.26	98.12	97.99	97.85	97.74	97.63	97.55	97.49	97.40	97.34

3.29 Data Set 6, 105°C, 500mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S126	5.875	5.876	5.868	5.869	5.868	5.864	5.865	5.862	5.857	5.860	5.851	5.856	5.849	5.847	5.843	5.842	5.839	5.834	5.833
S127	5.865	5.860	5.859	5.859	5.858	5.857	5.851	5.848	5.849	5.841	5.844	5.844	5.844	5.833	5.839	5.832	5.839	5.834	5.823
S128	5.835	5.831	5.829	5.829	5.829	5.824	5.826	5.821	5.821	5.813	5.819	5.814	5.816	5.809	5.803	5.809	5.800	5.793	5.797
S129	5.884	5.885	5.880	5.879	5.876	5.876	5.876	5.870	5.873	5.869	5.868	5.865	5.855	5.852	5.855	5.851	5.848	5.852	5.846
S130	5.866	5.867	5.867	5.861	5.861	5.858	5.855	5.852	5.849	5.842	5.848	5.838	5.844	5.840	5.834	5.834	5.832	5.836	5.834
S131	5.870	5.871	5.865	5.864	5.866	5.862	5.862	5.854	5.850	5.846	5.849	5.842	5.849	5.844	5.844	5.839	5.836	5.839	5.832
S132	5.878	5.878	5.874	5.873	5.868	5.867	5.864	5.863	5.859	5.860	5.863	5.858	5.859	5.845	5.852	5.846	5.848	5.839	5.839
S133	5.868	5.862	5.864	5.860	5.858	5.860	5.853	5.855	5.852	5.853	5.846	5.845	5.842	5.835	5.841	5.835	5.832	5.837	5.827
S134	5.863	5.864	5.861	5.857	5.858	5.852	5.855	5.849	5.848	5.848	5.842	5.835	5.842	5.832	5.830	5.830	5.830	5.825	5.823
S135	5.871	5.869	5.866	5.861	5.868	5.857	5.857	5.856	5.860	5.856	5.848	5.852	5.846	5.845	5.838	5.843	5.838	5.836	5.840
S136	5.859	5.857	5.861	5.852	5.851	5.848	5.848	5.842	5.846	5.839	5.844	5.834	5.830	5.827	5.828	5.826	5.823	5.828	5.828
S137	5.856	5.852	5.852	5.851	5.849	5.844	5.848	5.841	5.843	5.834	5.833	5.834	5.835	5.833	5.825	5.827	5.820	5.824	5.815
S138	5.848	5.850	5.850	5.843	5.841	5.833	5.840	5.834	5.831	5.824	5.832	5.827	5.820	5.820	5.820	5.819	5.819	5.810	5.808
S139	5.862	5.864	5.857	5.852	5.854	5.855	5.851	5.846	5.849	5.847	5.841	5.834	5.833	5.835	5.836	5.829	5.832	5.821	5.822
S140	5.854	5.855	5.850	5.846	5.850	5.843	5.846	5.841	5.836	5.834	5.831	5.829	5.833	5.826	5.825	5.827	5.820	5.823	5.816
S141	5.852	5.847	5.850	5.847	5.847	5.841	5.838	5.838	5.832	5.831	5.828	5.831	5.833	5.826	5.823	5.819	5.817	5.814	5.820
S142	5.850	5.851	5.845	5.846	5.845	5.842	5.839	5.830	5.834	5.826	5.830	5.829	5.831	5.827	5.821	5.818	5.814	5.815	5.816
S143	5.818	5.813	5.820	5.810	5.808	5.807	5.807	5.804	5.800	5.797	5.797	5.794	5.790	5.786	5.790	5.792	5.789	5.787	5.777
S144	5.848	5.850	5.841	5.843	5.840	5.840	5.838	5.829	5.832	5.833	5.825	5.828	5.822	5.822	5.821	5.815	5.818	5.813	5.809
S145	5.866	5.859	5.867	5.861	5.863	5.855	5.858	5.849	5.853	5.848	5.846	5.844	5.839	5.834	5.839	5.838	5.838	5.836	5.825
S146	5.872	5.847	5.843	5.840	5.844	5.841	5.842	5.836	5.830	5.830	5.829	5.829	5.831	5.818	5.819	5.817	5.820	5.819	5.818
S147	5.832	5.819	5.813	5.812	5.815	5.810	5.807	5.798	5.802	5.803	5.800	5.797	5.790	5.791	5.786	5.785	5.782	5.780	5.780
S148	5.866	5.840	5.844	5.845	5.843	5.839	5.837	5.834	5.834	5.828	5.827	5.827	5.825	5.825	5.815	5.821	5.814	5.809	5.817
S149	5.860	5.869	5.865	5.863	5.860	5.859	5.856	5.853	5.852	5.849	5.844	5.846	5.839	5.841	5.841	5.834	5.835	5.835	5.837
S150	5.867	5.845	5.844	5.843	5.843	5.838	5.839	5.830	5.834	5.830	5.829	5.828	5.830	5.823	5.822	5.822	5.815	5.818	5.812
Ave.	5.859	5.855	5.853	5.851	5.850	5.847	5.846	5.842	5.841	5.838	5.836	5.834	5.833	5.829	5.828	5.826	5.824	5.822	5.820
Med.	5.863	5.857	5.857	5.852	5.851	5.848	5.848	5.842	5.846	5.839	5.841	5.834	5.833	5.832	5.828	5.827	5.823	5.824	5.822
St dev	0.0150	0.0173	0.0162	0.0164	0.0162	0.0166	0.0162	0.0169	0.0168	0.0174	0.0164	0.0163	0.0167	0.0159	0.0170	0.0154	0.0165	0.0174	0.0169
Min.	5.818	5.813	5.813	5.810	5.808	5.807	5.807	5.798	5.800	5.797	5.797	5.794	5.790	5.786	5.786	5.785	5.782	5.780	5.777
Max.	5.884	5.885	5.880	5.879	5.876	5.876	5.876	5.870	5.873	5.869	5.868	5.865	5.859	5.852	5.855	5.851	5.848	5.852	5.846

3.30 Data Set 6, 105°C, 500mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S126	0.2573	0.5291	2803	0.0003	0.0004	0.0006	0.0009	0.0011	0.0014	0.0018	0.0022	0.0025	0.0027	0.0029	0.0031	0.0035	0.0038	0.0040	0.0042	0.0044	0.0047
S127	0.2570	0.5287	2811	0.0002	0.0004	0.0007	0.0008	0.0010	0.0014	0.0017	0.0020	0.0023	0.0025	0.0027	0.0029	0.0031	0.0033	0.0034	0.0036	0.0037	0.0039
S128	0.2573	0.5288	2804	0.0003	0.0005	0.0006	0.0009	0.0011	0.0015	0.0018	0.0020	0.0023	0.0025	0.0027	0.0029	0.0033	0.0034	0.0038	0.0039	0.0041	0.0043
S129	0.2569	0.5287	2812	0.0002	0.0004	0.0005	0.0008	0.0010	0.0013	0.0017	0.0021	0.0023	0.0025	0.0028	0.0030	0.0031	0.0033	0.0035	0.0037	0.0039	0.0042
S130	0.2576	0.5304	2791	0.0003	0.0005	0.0006	0.0009	0.0011	0.0014	0.0017	0.0021	0.0025	0.0027	0.0029	0.0031	0.0032	0.0034	0.0036	0.0039	0.0041	0.0044
S131	0.2572	0.5292	2804	0.0003	0.0005	0.0007	0.0010	0.0012	0.0015	0.0018	0.0022	0.0025	0.0027	0.0029	0.0031	0.0033	0.0035	0.0038	0.0040	0.0042	0.0044
S132	0.2574	0.5295	2798	0.0002	0.0004	0.0006	0.0009	0.0011	0.0014	0.0018	0.0021	0.0024	0.0026	0.0028	0.0030	0.0034	0.0036	0.0039	0.0041	0.0043	0.0045
S133	0.2573	0.5302	2798	0.0003	0.0004	0.0007	0.0009	0.0011	0.0014	0.0017	0.0021	0.0023	0.0026	0.0028	0.0030	0.0033	0.0035	0.0037	0.0038	0.0039	0.0040
S134	0.2579	0.5300	2786	0.0003	0.0004	0.0006	0.0009	0.0011	0.0015	0.0019	0.0021	0.0024	0.0026	0.0029	0.0031	0.0033	0.0036	0.0038	0.0039	0.0041	0.0042
S135	0.2571	0.5285	2810	0.0004	0.0005	0.0007	0.0010	0.0013	0.0016	0.0018	0.0022	0.0025	0.0027	0.0029	0.0032	0.0033	0.0035	0.0037	0.0038	0.0040	0.0041
S136	0.2568	0.5281	2819	0.0003	0.0005	0.0006	0.0010	0.0012	0.0016	0.0019	0.0022	0.0026	0.0029	0.0031	0.0033	0.0035	0.0036	0.0038	0.0040	0.0042	0.0044
S137	0.2566	0.5276	2826	0.0002	0.0005	0.0007	0.0009	0.0011	0.0014	0.0017	0.0020	0.0023	0.0025	0.0027	0.0029	0.0031	0.0033	0.0034	0.0037	0.0040	0.0041
S138	0.2573	0.5290	2803	0.0003	0.0004	0.0007	0.0009	0.0012	0.0015	0.0019	0.0021	0.0024	0.0026	0.0028	0.0030	0.0032	0.0034	0.0035	0.0036	0.0039	0.0041
S139	0.2569	0.5285	2814	0.0003	0.0005	0.0006	0.0010	0.0012	0.0015	0.0018	0.0020	0.0023	0.0025	0.0027	0.0030	0.0031	0.0035	0.0037	0.0038	0.0040	0.0041
S140	0.2567	0.5283	2820	0.0003	0.0005	0.0007	0.0010	0.0012	0.0016	0.0020	0.0024	0.0026	0.0028	0.0031	0.0033	0.0035	0.0036	0.0038	0.0041	0.0042	0.0044
S141	0.2568	0.5292	2813	0.0004	0.0006	0.0008	0.0011	0.0013	0.0016	0.0019	0.0023	0.0027	0.0029	0.0031	0.0033	0.0035	0.0038	0.0040	0.0042	0.0045	0.0046
S142	0.2571	0.5294	2807	0.0003	0.0005	0.0006	0.0009	0.0011	0.0014	0.0017	0.0019	0.0022	0.0024	0.0026	0.0029	0.0032	0.0034	0.0036	0.0037	0.0038	0.0040
S143	0.2568	0.5278	2820	0.0003	0.0005	0.0008	0.0011	0.0013	0.0017	0.0021	0.0024	0.0026	0.0029	0.0031	0.0033	0.0035	0.0038	0.0040	0.0042	0.0044	0.0045
S144	0.2564	0.5278	2828	0.0002	0.0004	0.0005	0.0008	0.0011	0.0014	0.0018	0.0022	0.0026	0.0028	0.0030	0.0032	0.0035	0.0037	0.0039	0.0040	0.0042	0.0044
S145	0.2564	0.5277	2828	0.0002	0.0003	0.0006	0.0008	0.0010	0.0013	0.0016	0.0019	0.0022	0.0024	0.0026	0.0028	0.0030	0.0032	0.0034	0.0036	0.0039	0.0041
S146	0.2570	0.5279	2815	0.0004	0.0005	0.0006	0.0009	0.0012	0.0015	0.0018	0.0021	0.0024	0.0026	0.0029	0.0031	0.0032	0.0036	0.0039	0.0040	0.0043	0.0044
S147	0.2570	0.5277	2815	0.0003	0.0005	0.0007	0.0009	0.0011	0.0014	0.0016	0.0020	0.0024	0.0026	0.0029	0.0031	0.0032	0.0036	0.0038	0.0039	0.0041	0.0043
S148	0.2571	0.5291	2808	0.0003	0.0005	0.0007	0.0011	0.0013	0.0017	0.0020	0.0024	0.0026	0.0029	0.0031	0.0033	0.0035	0.0037	0.0038	0.0040	0.0041	0.0043
S149	0.2576	0.5289	2797	0.0002	0.0005	0.0006	0.0009	0.0011	0.0015	0.0018	0.0021	0.0025	0.0027	0.0029	0.0031	0.0033	0.0035	0.0038	0.0041	0.0042	0.0045
S150	0.2569	0.5281	2815	0.0003	0.0005	0.0007	0.0010	0.0013	0.0016	0.0019	0.0021	0.0024	0.0026	0.0028	0.0031	0.0032	0.0034	0.0036	0.0037	0.0040	0.0041
Ave.	0.2571	0.5287	2810	0.0003	0.0005	0.0007	0.0009	0.0012	0.0015	0.0018	0.0021	0.0024	0.0027	0.0029	0.0031	0.0033	0.0035	0.0037	0.0039	0.0041	0.0043
Med.	0.2570	0.5287	2811	0.0003	0.0005	0.0006	0.0009	0.0011	0.0015	0.0018	0.0021	0.0024	0.0026	0.0029	0.0031	0.0033	0.0035	0.0038	0.0039	0.0041	0.0043
St dev	0.0004	0.0008	10.9278	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2564	0.5276	2786	0.0002	0.0003	0.0005	0.0008	0.0010	0.0013	0.0016	0.0019	0.0022	0.0024	0.0026	0.0028	0.0030	0.0032	0.0034	0.0036	0.0037	0.0039
Max.	0.2579	0.5304	2828	0.0004	0.0006	0.0008	0.0011	0.0013	0.0017	0.0021	0.0024	0.0027	0.0029	0.0031	0.0033	0.0035	0.0038	0.0040	0.0042	0.0045	0.0047

3.31 Data Set 7, 55°C, 960mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S151	775.8	100.10	99.93	99.79	99.58	99.39	99.20	99.03	98.85	98.67	98.54	98.40	98.26	98.11	97.98	97.84	97.73	97.64	97.53
S152	775.3	100.12	99.95	99.76	99.55	99.35	99.16	98.99	98.84	98.69	98.55	98.43	98.29	98.18	98.07	97.94	97.85	97.74	97.63
S153	775.8	100.10	99.93	99.75	99.53	99.34	99.14	98.97	98.79	98.61	98.47	98.33	98.21	98.09	97.97	97.79	97.70	97.62	97.53
S154	772.6	100.10	99.98	99.84	99.63	99.42	99.21	99.03	98.86	98.68	98.56	98.42	98.28	98.16	98.05	97.92	97.81	97.72	97.64
S155	771.3	100.09	99.97	99.83	99.62	99.43	99.22	99.06	98.89	98.72	98.59	98.46	98.33	98.22	98.09	97.92	97.83	97.75	97.63
S156	772.3	100.16	100.04	99.85	99.64	99.43	99.22	99.06	98.90	98.72	98.59	98.45	98.33	98.22	98.06	97.92	97.83	97.72	97.64
S157	773.8	100.16	99.99	99.85	99.64	99.43	99.22	99.04	98.86	98.71	98.59	98.45	98.31	98.16	98.05	97.92	97.81	97.70	97.58
S158	774.1	100.16	99.99	99.85	99.64	99.43	99.24	99.09	98.92	98.77	98.63	98.50	98.36	98.25	98.10	97.97	97.88	97.79	97.71
S159	770.5	100.13	100.01	99.87	99.68	99.47	99.28	99.13	98.98	98.83	98.69	98.55	98.43	98.31	98.20	98.05	97.97	97.88	97.80
S160	767.9	100.17	100.05	99.91	99.69	99.49	99.28	99.11	98.95	98.77	98.64	98.51	98.37	98.25	98.13	97.95	97.86	97.75	97.67
S161	776.7	100.15	100.02	99.84	99.63	99.42	99.21	99.05	98.87	98.69	98.56	98.42	98.29	98.14	98.02	97.89	97.80	97.69	97.58
S162	777.0	100.15	99.98	99.84	99.64	99.42	99.23	99.07	98.89	98.74	98.60	98.48	98.35	98.24	98.13	97.96	97.87	97.79	97.70
S163	775.4	100.14	99.97	99.78	99.57	99.38	99.18	99.02	98.84	98.69	98.55	98.42	98.28	98.16	98.05	97.91	97.82	97.73	97.65
S164	773.0	100.16	100.04	99.86	99.64	99.44	99.23	99.05	98.88	98.72	98.59	98.47	98.35	98.22	98.07	97.94	97.85	97.77	97.68
S165	778.8	100.12	100.00	99.86	99.65	99.45	99.23	99.08	98.90	98.73	98.60	98.46	98.34	98.18	98.03	97.85	97.77	97.68	97.59
S166	776.0	100.11	99.94	99.80	99.59	99.40	99.19	99.03	98.88	98.72	98.59	98.46	98.34	98.22	98.06	97.94	97.85	97.76	97.68
S167	772.9	100.13	100.01	99.82	99.61	99.42	99.21	99.03	98.88	98.73	98.60	98.47	98.33	98.21	98.08	97.94	97.85	97.74	97.65
S168	774.3	100.12	99.95	99.81	99.60	99.39	99.20	99.03	98.88	98.72	98.59	98.46	98.33	98.18	98.07	97.90	97.81	97.70	97.61
S169	776.2	100.14	99.97	99.78	99.57	99.37	99.15	99.00	98.84	98.67	98.55	98.42	98.29	98.18	98.05	97.92	97.81	97.73	97.64
S170	773.5	100.14	99.97	99.83	99.64	99.43	99.24	99.06	98.89	98.74	98.61	98.48	98.36	98.21	98.10	97.95	97.87	97.78	97.69
S171	770.7	100.09	99.92	99.73	99.52	99.33	99.12	98.97	98.80	98.65	98.51	98.38	98.24	98.08	97.93	97.79	97.67	97.59	97.50
S172	774.2	100.16	99.99	99.80	99.59	99.38	99.17	99.01	98.83	98.65	98.51	98.37	98.23	98.12	97.97	97.83	97.74	97.63	97.54
S173	772.6	100.11	99.94	99.80	99.59	99.38	99.19	99.01	98.84	98.68	98.56	98.43	98.31	98.16	98.05	97.92	97.83	97.74	97.63
S174	770.3	100.11	99.99	99.81	99.60	99.41	99.20	99.05	98.87	98.70	98.57	98.44	98.32	98.17	98.04	97.91	97.80	97.69	97.60
S175	769.9	100.08	99.91	99.77	99.56	99.37	99.16	98.98	98.83	98.68	98.55	98.42	98.28	98.16	98.05	97.90	97.82	97.73	97.64
Ave.	773.6	100.13	99.98	99.82	99.61	99.41	99.20	99.04	98.87	98.71	98.57	98.44	98.31	98.18	98.06	97.91	97.82	97.72	97.63
Med.	773.8	100.13	99.98	99.82	99.61	99.42	99.21	99.03	98.87	98.71	98.59	98.45	98.32	98.18	98.05	97.92	97.82	97.73	97.64
St dev	2.6027	0.0262	0.0377	0.0412	0.0430	0.0385	0.0402	0.0410	0.0426	0.0454	0.0455	0.0464	0.0485	0.0531	0.0565	0.0575	0.0612	0.0623	0.0647
Min.	767.9	100.08	99.91	99.73	99.52	99.33	99.12	98.97	98.79	98.61	98.47	98.33	98.21	98.08	97.93	97.79	97.67	97.59	97.50
Max.	778.8	100.17	100.05	99.91	99.69	99.49	99.28	99.13	98.98	98.83	98.69	98.55	98.43	98.31	98.20	98.05	97.97	97.88	97.80

3.32 Data Set 7, 55°C, 960mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S151	12.02	100.09	99.92	99.71	99.51	99.29	99.06	98.86	98.72	98.51	98.34	98.21	98.09	97.99	97.90	97.77	97.66	97.61	97.49
S152	12.01	100.09	99.91	99.75	99.56	99.35	99.15	99.00	98.80	98.64	98.45	98.31	98.17	98.04	97.91	97.78	97.67	97.59	97.52
S153	12.00	100.07	99.94	99.73	99.56	99.34	99.14	98.99	98.85	98.65	98.46	98.32	98.20	98.10	98.01	97.89	97.78	97.68	97.58
S154	11.99	100.14	100.01	99.80	99.61	99.41	99.21	99.05	98.91	98.76	98.62	98.50	98.36	98.23	98.10	98.00	97.85	97.74	97.68
S155	11.98	100.15	100.02	99.81	99.62	99.39	99.19	98.98	98.84	98.70	98.51	98.35	98.19	98.09	97.99	97.87	97.77	97.68	97.62
S156	11.97	100.13	99.96	99.75	99.55	99.35	99.15	98.94	98.74	98.54	98.39	98.25	98.11	97.98	97.86	97.77	97.63	97.53	97.41
S157	11.96	100.12	99.94	99.73	99.54	99.33	99.14	98.99	98.85	98.69	98.50	98.38	98.26	98.13	98.03	97.92	97.81	97.73	97.61
S158	11.95	100.09	99.91	99.70	99.54	99.33	99.14	98.97	98.77	98.63	98.46	98.34	98.20	98.07	97.97	97.84	97.69	97.58	97.52
S159	11.95	100.11	99.98	99.77	99.60	99.40	99.20	99.00	98.83	98.69	98.54	98.41	98.27	98.14	98.04	97.92	97.76	97.68	97.58
S160	11.94	100.15	100.02	99.86	99.69	99.46	99.24	99.07	98.91	98.77	98.62	98.48	98.32	98.20	98.10	97.97	97.82	97.71	97.59
S161	11.88	100.11	99.98	99.82	99.65	99.45	99.22	99.08	98.94	98.74	98.59	98.47	98.36	98.24	98.10	97.99	97.85	97.77	97.67
S162	11.88	100.10	99.97	99.81	99.64	99.44	99.23	99.03	98.87	98.66	98.50	98.33	98.22	98.10	98.00	97.87	97.74	97.65	97.59
S163	11.87	100.13	100.00	99.79	99.62	99.41	99.21	99.05	98.88	98.72	98.55	98.43	98.32	98.20	98.10	98.00	97.90	97.79	97.68
S164	11.86	100.10	99.92	99.72	99.52	99.32	99.10	98.93	98.73	98.53	98.36	98.24	98.10	98.01	97.91	97.79	97.63	97.53	97.41
S165	11.87	100.08	99.91	99.75	99.58	99.35	99.15	99.01	98.80	98.60	98.43	98.29	98.18	98.06	97.93	97.79	97.69	97.61	97.51
S166	11.85	100.12	99.99	99.79	99.61	99.41	99.21	99.01	98.80	98.66	98.47	98.31	98.15	98.03	97.90	97.77	97.61	97.56	97.44
S167	11.85	100.15	99.97	99.77	99.57	99.37	99.14	98.98	98.77	98.63	98.48	98.32	98.21	98.11	97.98	97.86	97.73	97.62	97.56
S168	11.85	100.08	99.95	99.79	99.62	99.42	99.22	99.02	98.88	98.71	98.57	98.43	98.29	98.19	98.06	97.96	97.83	97.72	97.63
S169	11.84	100.13	100.00	99.84	99.67	99.45	99.25	99.08	98.92	98.75	98.61	98.49	98.33	98.21	98.08	97.96	97.80	97.72	97.60
S170	11.84	100.11	99.93	99.77	99.60	99.40	99.18	98.97	98.77	98.57	98.40	98.24	98.10	97.98	97.85	97.72	97.61	97.51	97.39
S171	11.76	100.16	100.03	99.82	99.62	99.43	99.23	99.09	98.94	98.78	98.59	98.45	98.33	98.21	98.09	97.97	97.82	97.73	97.67
S172	11.76	100.10	99.92	99.71	99.54	99.34	99.11	98.97	98.76	98.60	98.41	98.29	98.13	98.04	97.92	97.80	97.69	97.64	97.57
S173	11.76	100.10	99.92	99.76	99.56	99.37	99.16	99.02	98.88	98.71	98.54	98.40	98.24	98.15	98.02	97.89	97.75	97.65	97.55
S174	11.75	100.08	99.95	99.74	99.57	99.37	99.17	99.03	98.83	98.68	98.49	98.33	98.19	98.06	97.94	97.82	97.69	97.63	97.52
S175	11.75	100.05	99.88	99.67	99.50	99.30	99.07	98.91	98.77	98.56	98.37	98.21	98.05	97.95	97.86	97.74	97.63	97.53	97.43
Ave.	11.89	100.11	99.96	99.77	99.59	99.38	99.17	99.00	98.83	98.66	98.49	98.35	98.21	98.10	97.99	97.87	97.74	97.65	97.55
Med.	11.87	100.11	99.95	99.77	99.58	99.37	99.17	99.00	98.83	98.66	98.49	98.33	98.20	98.10	97.99	97.87	97.74	97.65	97.57
St dev	0.0875	0.0280	0.0421	0.0471	0.0497	0.0487	0.0522	0.0547	0.0661	0.0776	0.0831	0.0888	0.0903	0.0864	0.0854	0.0896	0.0838	0.0813	0.0869
Min.	11.75	100.05	99.88	99.67	99.50	99.29	99.06	98.86	98.72	98.51	98.34	98.21	98.05	97.95	97.85	97.72	97.61	97.51	97.39
Max.	12.02	100.16	100.03	99.86	99.69	99.46	99.25	99.09	98.94	98.78	98.62	98.50	98.36	98.24	98.10	98.00	97.90	97.79	97.68

3.33 Data Set 7, 55°C, 960mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S151	0.8233	100.17	100.02	99.82	99.64	99.44	99.26	99.11	98.93	98.78	98.64	98.47	98.31	98.22	98.11	98.00	97.90	97.77	97.67
S152	0.8226	100.09	99.91	99.71	99.50	99.29	99.11	98.92	98.77	98.59	98.45	98.30	98.17	98.03	97.92	97.75	97.67	97.55	97.42
S153	0.8223	100.11	99.93	99.70	99.52	99.34	99.13	98.95	98.80	98.65	98.50	98.37	98.24	98.16	98.05	97.88	97.80	97.70	97.59
S154	0.8218	100.17	99.99	99.79	99.57	99.36	99.16	98.98	98.80	98.62	98.49	98.34	98.18	98.04	97.92	97.81	97.71	97.59	97.48
S155	0.8218	100.06	99.88	99.65	99.44	99.23	99.05	98.87	98.69	98.51	98.38	98.23	98.10	98.02	97.90	97.79	97.71	97.60	97.50
S156	0.8209	100.07	99.92	99.72	99.54	99.36	99.15	98.97	98.82	98.67	98.54	98.38	98.25	98.16	98.05	97.88	97.80	97.70	97.60
S157	0.8204	100.15	99.97	99.73	99.53	99.35	99.15	98.97	98.82	98.64	98.49	98.35	98.20	98.12	97.95	97.84	97.76	97.65	97.53
S158	0.8197	100.14	99.97	99.76	99.56	99.36	99.15	98.97	98.78	98.60	98.47	98.34	98.21	98.13	98.01	97.90	97.80	97.70	97.59
S159	0.8193	100.09	99.94	99.71	99.50	99.30	99.10	98.92	98.77	98.58	98.45	98.29	98.16	98.08	97.96	97.85	97.77	97.67	97.56
S160	0.8200	100.14	100.00	99.76	99.56	99.35	99.17	98.99	98.84	98.66	98.53	98.38	98.22	98.08	97.96	97.85	97.77	97.67	97.54
S161	0.8253	100.08	99.93	99.73	99.55	99.37	99.16	98.98	98.80	98.62	98.49	98.34	98.17	98.09	97.97	97.86	97.78	97.68	97.57
S162	0.8255	100.09	99.91	99.67	99.46	99.26	99.05	98.87	98.72	98.57	98.44	98.27	98.11	98.02	97.91	97.74	97.64	97.54	97.41
S163	0.8252	100.15	99.97	99.77	99.57	99.39	99.19	99.04	98.86	98.67	98.51	98.34	98.18	98.04	97.93	97.81	97.71	97.59	97.48
S164	0.8240	100.07	99.89	99.69	99.48	99.27	99.09	98.95	98.77	98.58	98.42	98.27	98.12	97.99	97.87	97.71	97.61	97.51	97.40
S165	0.8249	100.10	99.96	99.72	99.51	99.30	99.09	98.94	98.76	98.58	98.45	98.30	98.15	98.01	97.90	97.78	97.71	97.58	97.46
S166	0.8240	100.15	99.98	99.77	99.57	99.37	99.17	98.99	98.80	98.62	98.48	98.35	98.20	98.06	97.95	97.83	97.76	97.65	97.55
S167	0.8239	100.09	99.92	99.68	99.47	99.26	99.05	98.86	98.71	98.53	98.40	98.26	98.13	97.99	97.87	97.76	97.68	97.58	97.48
S168	0.8242	100.13	99.96	99.72	99.52	99.34	99.16	98.98	98.80	98.65	98.50	98.37	98.21	98.07	97.90	97.74	97.66	97.53	97.41
S169	0.8236	100.15	100.00	99.80	99.62	99.42	99.24	99.06	98.88	98.69	98.55	98.42	98.25	98.17	98.00	97.89	97.79	97.66	97.56
S170	0.8231	100.12	99.95	99.71	99.50	99.29	99.08	98.90	98.72	98.57	98.44	98.29	98.14	98.06	97.89	97.78	97.70	97.60	97.50
S171	0.8092	100.16	99.98	99.75	99.53	99.32	99.15	98.96	98.78	98.60	98.43	98.30	98.14	98.05	97.94	97.77	97.67	97.57	97.46
S172	0.8095	100.15	99.98	99.74	99.54	99.33	99.12	98.93	98.78	98.64	98.47	98.32	98.19	98.06	97.89	97.77	97.70	97.60	97.47
S173	0.8095	100.10	99.93	99.69	99.49	99.28	99.11	98.93	98.74	98.56	98.43	98.30	98.13	98.05	97.88	97.76	97.69	97.57	97.46
S174	0.8095	100.16	99.99	99.78	99.57	99.37	99.16	99.01	98.83	98.65	98.48	98.35	98.21	98.12	98.01	97.89	97.82	97.71	97.61
S175	0.8086	100.07	99.89	99.69	99.51	99.30	99.09	98.90	98.72	98.54	98.41	98.25	98.08	97.94	97.83	97.72	97.64	97.51	97.39
Ave.	0.8201	100.12	99.95	99.73	99.53	99.33	99.13	98.96	98.79	98.61	98.47	98.33	98.18	98.07	97.94	97.81	97.73	97.62	97.51
Med.	0.8223	100.12	99.96	99.72	99.53	99.34	99.15	98.96	98.78	98.62	98.47	98.34	98.18	98.06	97.93	97.81	97.71	97.60	97.50
St dev	0.0058	0.0366	0.0383	0.0436	0.0482	0.0513	0.0535	0.0588	0.0557	0.0590	0.0552	0.0554	0.0534	0.0646	0.0654	0.0690	0.0684	0.0702	0.0746
Min.	0.8086	100.06	99.88	99.65	99.44	99.23	99.05	98.86	98.69	98.51	98.38	98.23	98.08	97.94	97.83	97.71	97.61	97.51	97.39
Max.	0.8255	100.17	100.02	99.82	99.64	99.44	99.26	99.11	98.93	98.78	98.64	98.47	98.31	98.22	98.11	98.00	97.90	97.77	97.67

3.34 Data Set 7, 55°C, 960mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S151	6.378	6.375	6.373	6.370	6.372	6.373	6.364	6.359	6.364	6.359	6.355	6.356	6.359	6.352	6.347	6.353	6.353	6.352	6.346
S152	6.367	6.369	6.362	6.363	6.357	6.357	6.359	6.356	6.355	6.349	6.344	6.341	6.347	6.341	6.346	6.341	6.335	6.342	6.340
S153	6.336	6.333	6.335	6.332	6.326	6.321	6.331	6.325	6.320	6.321	6.318	6.317	6.314	6.315	6.316	6.311	6.310	6.310	6.301
S154	6.372	6.369	6.365	6.366	6.369	6.365	6.357	6.354	6.353	6.356	6.357	6.353	6.350	6.347	6.351	6.339	6.346	6.338	6.337
S155	6.379	6.379	6.378	6.373	6.371	6.373	6.374	6.363	6.361	6.366	6.362	6.360	6.356	6.359	6.354	6.354	6.347	6.345	6.344
S156	6.371	6.371	6.366	6.363	6.362	6.366	6.361	6.353	6.353	6.353	6.351	6.349	6.345	6.348	6.346	6.345	6.339	6.342	6.342
S157	6.362	6.362	6.362	6.359	6.359	6.356	6.346	6.346	6.348	6.349	6.348	6.346	6.344	6.336	6.332	6.336	6.336	6.328	6.327
S158	6.367	6.367	6.360	6.364	6.357	6.362	6.352	6.356	6.350	6.349	6.346	6.348	6.347	6.344	6.339	6.337	6.341	6.343	6.332
S159	6.364	6.366	6.357	6.356	6.353	6.349	6.348	6.348	6.348	6.346	6.350	6.341	6.344	6.343	6.341	6.332	6.338	6.335	6.327
S160	6.381	6.376	6.380	6.375	6.377	6.366	6.366	6.370	6.363	6.363	6.362	6.355	6.365	6.361	6.351	6.355	6.355	6.356	6.349
S161	6.383	6.380	6.385	6.373	6.375	6.369	6.376	6.369	6.367	6.365	6.370	6.364	6.361	6.355	6.363	6.357	6.357	6.357	6.348
S162	6.372	6.371	6.371	6.366	6.362	6.358	6.357	6.358	6.358	6.352	6.354	6.353	6.350	6.346	6.347	6.343	6.339	6.347	6.337
S163	6.377	6.376	6.371	6.367	6.371	6.367	6.368	6.361	6.361	6.362	6.358	6.359	6.351	6.351	6.346	6.353	6.343	6.344	6.340
S164	6.390	6.387	6.391	6.386	6.387	6.377	6.382	6.371	6.373	6.375	6.372	6.365	6.368	6.369	6.359	6.364	6.364	6.366	6.355
S165	6.375	6.377	6.374	6.372	6.372	6.365	6.361	6.364	6.358	6.357	6.352	6.359	6.349	6.347	6.352	6.341	6.350	6.341	6.338
S166	6.340	6.339	6.340	6.337	6.331	6.327	6.330	6.326	6.322	6.322	6.317	6.321	6.314	6.318	6.312	6.316	6.314	6.306	6.312
S167	6.383	6.380	6.382	6.378	6.373	6.375	6.376	6.370	6.364	6.363	6.365	6.361	6.365	6.363	6.360	6.351	6.357	6.349	6.348
S168	6.376	6.375	6.376	6.372	6.371	6.361	6.367	6.364	6.357	6.358	6.353	6.350	6.350	6.353	6.354	6.351	6.342	6.342	6.341
S169	6.368	6.367	6.362	6.358	6.360	6.358	6.358	6.355	6.356	6.353	6.350	6.350	6.349	6.346	6.343	6.335	6.338	6.343	6.335
S170	6.370	6.364	6.370	6.360	6.361	6.363	6.362	6.351	6.354	6.353	6.352	6.344	6.350	6.348	6.342	6.344	6.336	6.337	6.341
S171	6.338	6.337	6.337	6.329	6.330	6.324	6.323	6.322	6.322	6.323	6.319	6.316	6.315	6.310	6.312	6.304	6.312	6.308	6.311
S172	6.333	6.334	6.333	6.325	6.325	6.325	6.319	6.314	6.316	6.318	6.318	6.317	6.317	6.313	6.310	6.307	6.299	6.299	6.298
S173	6.298	6.299	6.297	6.293	6.295	6.293	6.288	6.287	6.284	6.280	6.283	6.279	6.276	6.272	6.270	6.264	6.265	6.265	6.263
S174	6.330	6.328	6.330	6.324	6.320	6.325	6.315	6.314	6.314	6.310	6.316	6.305	6.311	6.307	6.305	6.297	6.304	6.304	6.295
S175	6.334	6.329	6.331	6.328	6.325	6.325	6.319	6.317	6.323	6.311	6.316	6.316	6.309	6.308	6.314	6.308	6.308	6.300	6.307
Ave.	6.362	6.360	6.359	6.356	6.354	6.352	6.350	6.347	6.346	6.345	6.343	6.341	6.340	6.338	6.337	6.334	6.333	6.332	6.329
Med.	6.370	6.369	6.365	6.363	6.361	6.361	6.358	6.355	6.354	6.353	6.351	6.349	6.349	6.346	6.346	6.341	6.339	6.342	6.337
St dev	0.0224	0.0222	0.0221	0.0223	0.0230	0.0222	0.0234	0.0223	0.0218	0.0229	0.0218	0.0218	0.0227	0.0228	0.0222	0.0238	0.0230	0.0236	0.0220
Min.	6.298	6.299	6.297	6.293	6.295	6.293	6.288	6.287	6.284	6.280	6.283	6.279	6.276	6.272	6.270	6.264	6.265	6.265	6.263
Max.	6.390	6.387	6.391	6.386	6.387	6.377	6.382	6.371	6.373	6.375	6.372	6.365	6.368	6.369	6.363	6.364	6.364	6.366	6.355

3.35 Data Set 7, 55°C, 960mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	12000hrs	18000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S151	0.2563	0.5250	2845	0.0002	0.0003	0.0005	0.0007	0.0010	0.0011	0.0013	0.0016	0.0018	0.0020	0.0021	0.0024	0.0027	0.0029	0.0031	0.0032	0.0033	0.0035
S152	0.2560	0.5246	2853	0.0001	0.0004	0.0006	0.0007	0.0008	0.0009	0.0013	0.0016	0.0018	0.0019	0.0022	0.0023	0.0025	0.0028	0.0030	0.0032	0.0034	0.0036
S153	0.2564	0.5247	2844	0.0002	0.0004	0.0005	0.0008	0.0009	0.0010	0.0013	0.0015	0.0017	0.0019	0.0020	0.0022	0.0024	0.0026	0.0028	0.0029	0.0031	0.0033
S154	0.2563	0.5252	2844	0.0001	0.0002	0.0004	0.0007	0.0009	0.0010	0.0013	0.0014	0.0018	0.0019	0.0021	0.0022	0.0024	0.0028	0.0029	0.0031	0.0032	0.0034
S155	0.2565	0.5254	2838	0.0001	0.0003	0.0005	0.0006	0.0007	0.0010	0.0011	0.0015	0.0016	0.0019	0.0021	0.0022	0.0026	0.0028	0.0031	0.0032	0.0033	0.0034
S156	0.2561	0.5244	2852	0.0002	0.0004	0.0005	0.0006	0.0007	0.0008	0.0011	0.0013	0.0015	0.0017	0.0019	0.0021	0.0022	0.0023	0.0027	0.0028	0.0031	0.0032
S157	0.2569	0.5258	2827	0.0001	0.0002	0.0003	0.0004	0.0007	0.0009	0.0011	0.0013	0.0015	0.0017	0.0018	0.0021	0.0023	0.0024	0.0027	0.0029	0.0031	0.0033
S158	0.2564	0.5261	2838	0.0002	0.0004	0.0005	0.0008	0.0010	0.0011	0.0014	0.0015	0.0017	0.0019	0.0021	0.0024	0.0025	0.0028	0.0030	0.0032	0.0034	0.0035
S159	0.2567	0.5262	2830	0.0001	0.0004	0.0005	0.0006	0.0009	0.0010	0.0012	0.0015	0.0018	0.0020	0.0023	0.0024	0.0028	0.0031	0.0033	0.0034	0.0035	0.0037
S160	0.2561	0.5244	2853	0.0002	0.0004	0.0005	0.0008	0.0010	0.0011	0.0013	0.0016	0.0020	0.0022	0.0024	0.0025	0.0027	0.0031	0.0034	0.0036	0.0038	0.0039
S161	0.2556	0.5299	2837	0.0001	0.0003	0.0005	0.0006	0.0007	0.0010	0.0011	0.0013	0.0016	0.0018	0.0020	0.0023	0.0024	0.0025	0.0027	0.0029	0.0031	0.0032
S162	0.2554	0.5296	2842	0.0002	0.0004	0.0006	0.0007	0.0010	0.0011	0.0013	0.0015	0.0017	0.0019	0.0020	0.0023	0.0024	0.0026	0.0028	0.0030	0.0032	0.0034
S163	0.2555	0.5301	2836	0.0002	0.0004	0.0005	0.0006	0.0007	0.0009	0.0010	0.0012	0.0015	0.0017	0.0018	0.0020	0.0021	0.0023	0.0025	0.0027	0.0028	0.0030
S164	0.2554	0.5295	2842	0.0001	0.0002	0.0003	0.0005	0.0008	0.0010	0.0013	0.0016	0.0019	0.0021	0.0022	0.0024	0.0026	0.0029	0.0031	0.0032	0.0035	0.0036
S165	0.2556	0.5311	2829	0.0001	0.0002	0.0004	0.0005	0.0007	0.0009	0.0011	0.0013	0.0016	0.0018	0.0019	0.0022	0.0024	0.0025	0.0027	0.0028	0.0030	0.0032
S166	0.2557	0.5296	2835	0.0001	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0014	0.0016	0.0018	0.0019	0.0022	0.0023	0.0024	0.0028	0.0029	0.0030	0.0032
S167	0.2558	0.5303	2829	0.0002	0.0004	0.0007	0.0008	0.0010	0.0011	0.0013	0.0015	0.0017	0.0020	0.0021	0.0023	0.0026	0.0027	0.0028	0.0029	0.0031	0.0033
S168	0.2554	0.5294	2842	0.0001	0.0003	0.0004	0.0005	0.0006	0.0008	0.0009	0.0012	0.0013	0.0016	0.0018	0.0021	0.0022	0.0023	0.0025	0.0027	0.0029	0.0031
S169	0.2563	0.5308	2818	0.0001	0.0003	0.0004	0.0005	0.0008	0.0010	0.0012	0.0015	0.0017	0.0018	0.0021	0.0023	0.0026	0.0027	0.0029	0.0030	0.0031	0.0033
S170	0.2560	0.5311	2822	0.0002	0.0004	0.0005	0.0008	0.0009	0.0010	0.0013	0.0017	0.0020	0.0022	0.0024	0.0027	0.0030	0.0031	0.0034	0.0036	0.0037	0.0039
S171	0.2556	0.5297	2837	0.0001	0.0003	0.0005	0.0006	0.0009	0.0010	0.0012	0.0013	0.0016	0.0018	0.0021	0.0022	0.0024	0.0026	0.0028	0.0030	0.0031	0.0034
S172	0.2557	0.5309	2830	0.0001	0.0003	0.0004	0.0005	0.0007	0.0008	0.0010	0.0012	0.0015	0.0017	0.0018	0.0021	0.0023	0.0025	0.0027	0.0029	0.0031	0.0033
S173	0.2556	0.5295	2839	0.0001	0.0004	0.0005	0.0006	0.0009	0.0010	0.0011	0.0015	0.0016	0.0019	0.0020	0.0022	0.0023	0.0027	0.0029	0.0030	0.0033	0.0035
S174	0.2560	0.5310	2823	0.0002	0.0004	0.0005	0.0007	0.0008	0.0009	0.0011	0.0014	0.0017	0.0019	0.0021	0.0022	0.0023	0.0027	0.0028	0.0029	0.0030	0.0031
S175	0.2554	0.5291	2843	0.0001	0.0004	0.0006	0.0007	0.0008	0.0010	0.0011	0.0014	0.0017	0.0018	0.0020	0.0021	0.0025	0.0026	0.0029	0.0031	0.0033	0.0034
Ave.	0.2559	0.5281	2837	0.0001	0.0003	0.0005	0.0006	0.0008	0.0010	0.0012	0.0014	0.0017	0.0019	0.0021	0.0023	0.0025	0.0027	0.0029	0.0030	0.0032	0.0034
Med.	0.2560	0.5295	2838	0.0001	0.0004	0.0005	0.0006	0.0008	0.0010	0.0012	0.0015	0.0017	0.0019	0.0021	0.0022	0.0024	0.0027	0.0028	0.0030	0.0031	0.0034
St dev	0.0004	0.0026	9.4177	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0002	0.0002	0.0002
Min.	0.2554	0.5244	2818	0.0001	0.0002	0.0003	0.0004	0.0006	0.0008	0.0009	0.0012	0.0013	0.0016	0.0018	0.0020	0.0021	0.0023	0.0025	0.0027	0.0028	0.0030
Max.	0.2569	0.5311	2853	0.0002	0.0004	0.0007	0.0008	0.0010	0.0011	0.0014	0.0017	0.0020	0.0022	0.0024	0.0027	0.0030	0.0031	0.0034	0.0036	0.0038	0.0039

3.36 Data Set 8, 85°C, 960mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S176	771.1	100.03	99.85	99.69	99.42	99.15	98.88	98.67	98.46	98.22	97.97	97.78	97.53	97.36	97.14	96.92	96.75	96.55	96.35
S177	768.5	100.03	99.87	99.71	99.47	99.20	98.96	98.72	98.51	98.30	98.10	97.90	97.65	97.46	97.26	97.07	96.89	96.71	96.56
S178	770.7	100.01	99.84	99.66	99.39	99.12	98.88	98.65	98.41	98.22	98.02	97.77	97.58	97.36	97.16	96.97	96.77	96.62	96.44
S179	770.8	100.03	99.86	99.68	99.41	99.14	98.87	98.66	98.48	98.29	98.04	97.84	97.59	97.43	97.21	96.99	96.81	96.66	96.51
S180	771.1	100.09	99.91	99.75	99.51	99.27	99.03	98.79	98.55	98.37	98.12	97.87	97.62	97.42	97.26	97.09	96.90	96.72	96.56
S181	771.0	100.04	99.86	99.69	99.42	99.18	98.94	98.70	98.49	98.28	98.03	97.78	97.53	97.31	97.12	96.90	96.75	96.55	96.37
S182	771.5	100.04	99.88	99.70	99.46	99.22	98.98	98.74	98.51	98.30	98.10	97.85	97.65	97.43	97.21	96.99	96.80	96.62	96.44
S183	767.4	100.06	99.90	99.72	99.45	99.18	98.94	98.76	98.55	98.31	98.11	97.91	97.66	97.47	97.27	97.07	96.92	96.77	96.57
S184	768.0	99.99	99.83	99.67	99.40	99.13	98.89	98.70	98.49	98.31	98.11	97.86	97.61	97.45	97.25	97.03	96.85	96.70	96.55
S185	750.8	100.08	99.92	99.74	99.50	99.23	98.96	98.75	98.54	98.30	98.05	97.81	97.61	97.44	97.25	97.03	96.85	96.65	96.46
S186	775.2	100.08	99.90	99.73	99.46	99.19	98.95	98.71	98.53	98.29	98.09	97.89	97.69	97.50	97.33	97.17	96.97	96.82	96.62
S187	775.4	100.01	99.85	99.67	99.43	99.19	98.92	98.71	98.50	98.31	98.06	97.82	97.57	97.35	97.15	96.93	96.74	96.58	96.43
S188	777.1	99.98	99.81	99.63	99.39	99.15	98.88	98.70	98.46	98.22	97.97	97.72	97.47	97.31	97.14	96.98	96.78	96.59	96.43
S189	773.0	100.07	99.89	99.73	99.46	99.22	98.95	98.77	98.58	98.37	98.17	97.92	97.67	97.51	97.31	97.10	96.90	96.75	96.55
S190	773.7	99.99	99.83	99.67	99.40	99.16	98.92	98.68	98.49	98.31	98.11	97.86	97.61	97.39	97.20	97.00	96.82	96.64	96.49
S191	777.3	100.07	99.90	99.74	99.47	99.20	98.93	98.69	98.51	98.30	98.05	97.80	97.60	97.40	97.18	96.99	96.81	96.63	96.48
S192	773.5	100.07	99.91	99.74	99.50	99.23	98.99	98.75	98.54	98.30	98.10	97.85	97.65	97.49	97.27	97.05	96.86	96.70	96.55
S193	775.3	100.07	99.91	99.73	99.49	99.23	98.96	98.75	98.56	98.38	98.18	97.93	97.73	97.53	97.34	97.12	96.97	96.81	96.62
S194	774.2	100.09	99.91	99.74	99.50	99.22	98.96	98.75	98.56	98.32	98.07	97.82	97.57	97.36	97.19	97.03	96.85	96.65	96.50
S195	770.7	100.04	99.88	99.71	99.47	99.22	98.95	98.74	98.56	98.32	98.07	97.87	97.62	97.46	97.26	97.04	96.87	96.69	96.53
S196	770.5	100.04	99.86	99.70	99.43	99.16	98.89	98.66	98.47	98.23	97.98	97.73	97.48	97.29	97.07	96.85	96.70	96.50	96.31
S197	771.8	100.07	99.91	99.73	99.47	99.19	98.95	98.77	98.53	98.32	98.07	97.82	97.62	97.46	97.24	97.07	96.88	96.70	96.50
S198	769.5	100.03	99.86	99.70	99.46	99.19	98.92	98.71	98.52	98.31	98.06	97.86	97.61	97.42	97.20	96.98	96.83	96.67	96.50
S199	769.3	100.08	99.91	99.73	99.46	99.20	98.93	98.74	98.50	98.27	98.02	97.77	97.52	97.32	97.10	96.94	96.78	96.63	96.45
S200	768.2	100.07	99.91	99.73	99.46	99.22	98.95	98.77	98.56	98.37	98.12	97.87	97.67	97.51	97.31	97.15	97.00	96.80	96.60
Ave.	771.0	100.05	99.88	99.71	99.45	99.19	98.94	98.72	98.51	98.30	98.07	97.84	97.61	97.42	97.22	97.02	96.84	96.67	96.50
Med.	771.1	100.04	99.88	99.71	99.46	99.19	98.94	98.72	98.51	98.30	98.07	97.85	97.61	97.43	97.21	97.03	96.85	96.66	96.50
St dev	5.0447	0.0316	0.0318	0.0306	0.0352	0.0361	0.0380	0.0396	0.0407	0.0443	0.0539	0.0569	0.0640	0.0694	0.0723	0.0775	0.0760	0.0822	0.0806
Min.	750.8	99.98	99.81	99.63	99.39	99.12	98.87	98.65	98.41	98.22	97.97	97.72	97.47	97.29	97.07	96.85	96.70	96.50	96.31
Max.	777.3	100.09	99.92	99.75	99.51	99.27	99.03	98.79	98.58	98.38	98.18	97.93	97.73	97.53	97.34	97.17	97.00	96.82	96.62

3.37 Data Set 8, 85°C, 960mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S176	11.88	100.06	99.84	99.59	99.27	99.00	98.72	98.47	98.23	97.99	97.75	97.48	97.21	97.01	96.84	96.67	96.50	96.35	96.19
S177	11.88	100.07	99.85	99.63	99.40	99.11	98.84	98.60	98.37	98.12	97.91	97.73	97.55	97.31	97.10	96.89	96.73	96.60	96.42
S178	11.88	100.06	99.84	99.59	99.28	99.01	98.72	98.50	98.27	98.03	97.73	97.54	97.33	97.12	96.94	96.76	96.60	96.45	96.30
S179	11.87	99.99	99.74	99.49	99.18	98.89	98.61	98.36	98.12	97.89	97.68	97.41	97.23	97.03	96.85	96.68	96.50	96.36	96.21
S180	11.86	99.99	99.77	99.52	99.21	98.94	98.66	98.44	98.21	97.97	97.76	97.55	97.37	97.17	96.96	96.78	96.61	96.46	96.30
S181	11.85	100.05	99.83	99.58	99.26	98.99	98.71	98.47	98.23	98.00	97.79	97.57	97.39	97.15	96.95	96.74	96.56	96.43	96.26
S182	11.85	99.99	99.74	99.49	99.26	99.06	98.86	98.62	98.37	98.14	97.92	97.71	97.50	97.29	97.11	96.93	96.75	96.61	96.44
S183	11.84	100.01	99.79	99.54	99.23	98.94	98.66	98.43	98.21	97.98	97.68	97.47	97.26	97.05	96.84	96.66	96.50	96.36	96.20
S184	11.84	100.05	99.80	99.55	99.24	99.03	98.83	98.59	98.36	98.12	97.91	97.64	97.43	97.22	97.04	96.83	96.66	96.51	96.35
S185	11.68	100.07	99.82	99.60	99.30	99.03	98.76	98.52	98.27	98.05	97.81	97.60	97.33	97.12	96.94	96.76	96.59	96.44	96.29
S186	11.85	100.03	99.78	99.53	99.30	99.10	98.81	98.57	98.33	98.09	97.79	97.61	97.43	97.22	97.04	96.87	96.69	96.54	96.38
S187	11.86	100.04	99.82	99.57	99.27	99.00	98.80	98.56	98.31	98.07	97.77	97.56	97.35	97.13	96.95	96.77	96.61	96.48	96.33
S188	11.85	100.02	99.80	99.58	99.28	98.99	98.72	98.48	98.25	98.01	97.77	97.59	97.38	97.17	96.99	96.81	96.64	96.49	96.33
S189	11.84	100.06	99.84	99.62	99.32	99.12	98.83	98.59	98.34	98.12	97.82	97.64	97.46	97.25	97.04	96.86	96.68	96.55	96.38
S190	11.84	99.99	99.77	99.55	99.23	99.03	98.76	98.52	98.28	98.05	97.75	97.57	97.39	97.18	97.01	96.84	96.67	96.54	96.37
S191	11.84	100.00	99.75	99.53	99.23	98.94	98.66	98.43	98.19	97.95	97.71	97.53	97.35	97.15	96.98	96.77	96.59	96.46	96.30
S192	11.83	100.06	99.81	99.59	99.29	99.02	98.75	98.50	98.28	98.04	97.80	97.62	97.41	97.17	97.00	96.83	96.67	96.54	96.37
S193	11.83	100.02	99.80	99.58	99.35	99.15	98.88	98.64	98.40	98.16	97.86	97.68	97.50	97.29	97.08	96.91	96.74	96.61	96.44
S194	11.83	100.06	99.81	99.59	99.36	99.09	98.80	98.57	98.33	98.10	97.86	97.65	97.38	97.17	97.00	96.82	96.64	96.49	96.33
S195	11.82	100.01	99.79	99.57	99.25	98.98	98.70	98.45	98.21	97.98	97.77	97.59	97.37	97.18	96.97	96.76	96.59	96.45	96.29
S196	11.71	99.98	99.76	99.54	99.24	98.95	98.67	98.43	98.19	97.95	97.74	97.56	97.38	97.17	96.96	96.79	96.62	96.48	96.33
S197	11.71	100.00	99.78	99.56	99.26	98.97	98.69	98.45	98.20	97.96	97.72	97.45	97.18	96.98	96.81	96.60	96.43	96.29	96.13
S198	11.70	100.04	99.82	99.60	99.37	99.08	98.80	98.55	98.33	98.10	97.89	97.62	97.41	97.20	97.03	96.86	96.68	96.53	96.35
S199	11.69	100.02	99.80	99.58	99.26	98.98	98.69	98.45	98.20	97.98	97.68	97.50	97.32	97.11	96.94	96.73	96.54	96.41	96.24
S200	11.68	100.03	99.82	99.56	99.33	99.05	98.85	98.61	98.38	98.14	97.93	97.75	97.57	97.36	97.18	96.97	96.80	96.67	96.51
Ave.	11.81	100.03	99.80	99.57	99.28	99.02	98.75	98.51	98.27	98.04	97.79	97.58	97.38	97.17	96.98	96.80	96.62	96.48	96.32
Med.	11.84	100.03	99.80	99.57	99.27	99.01	98.75	98.50	98.27	98.04	97.77	97.59	97.38	97.17	96.98	96.79	96.62	96.48	96.33
St dev	0.0694	0.0289	0.0310	0.0347	0.0529	0.0643	0.0754	0.0736	0.0746	0.0737	0.0786	0.0853	0.0963	0.0915	0.0882	0.0881	0.0885	0.0905	0.0883
Min.	11.68	99.98	99.74	99.49	99.18	98.89	98.61	98.36	98.12	97.89	97.68	97.41	97.18	96.98	96.81	96.60	96.43	96.29	96.13
Max.	11.88	100.07	99.85	99.63	99.40	99.15	98.88	98.64	98.40	98.16	97.93	97.75	97.57	97.36	97.18	96.97	96.80	96.67	96.51

3.38 Data Set 8, 85°C, 960mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S176	0.8091	100.03	99.80	99.61	99.30	99.03	98.75	98.50	98.25	98.05	97.80	97.58	97.36	97.16	96.95	96.74	96.62	96.44	96.28
S177	0.8090	100.02	99.81	99.62	99.34	99.08	98.76	98.48	98.23	98.03	97.83	97.64	97.44	97.24	97.02	96.81	96.63	96.47	96.28
S178	0.8087	100.09	99.86	99.67	99.39	99.12	98.86	98.58	98.38	98.19	97.99	97.74	97.54	97.34	97.13	96.91	96.73	96.61	96.45
S179	0.8083	99.98	99.75	99.55	99.23	98.92	98.63	98.36	98.10	97.83	97.63	97.38	97.16	96.96	96.75	96.53	96.38	96.19	96.07
S180	0.8089	100.01	99.79	99.59	99.28	98.99	98.71	98.51	98.31	98.06	97.86	97.61	97.39	97.18	96.96	96.76	96.60	96.44	96.26
S181	0.8075	100.07	99.83	99.63	99.31	99.05	98.79	98.51	98.26	98.06	97.84	97.62	97.37	97.16	96.94	96.75	96.63	96.51	96.33
S182	0.8072	100.04	99.80	99.60	99.29	98.97	98.71	98.46	98.20	98.01	97.76	97.56	97.36	97.15	96.94	96.72	96.60	96.44	96.26
S183	0.8073	100.02	99.80	99.60	99.29	99.00	98.69	98.41	98.21	97.96	97.76	97.51	97.26	97.07	96.87	96.67	96.49	96.33	96.21
S184	0.8071	100.00	99.76	99.58	99.30	99.01	98.73	98.48	98.23	98.03	97.81	97.61	97.41	97.21	97.02	96.81	96.69	96.53	96.41
S185	0.8343	100.08	99.86	99.68	99.41	99.15	98.84	98.58	98.33	98.05	97.86	97.64	97.42	97.20	96.99	96.78	96.59	96.44	96.25
S186	0.8168	100.01	99.80	99.61	99.30	98.98	98.72	98.47	98.27	98.02	97.80	97.58	97.36	97.16	96.95	96.74	96.62	96.50	96.32
S187	0.8179	100.00	99.78	99.58	99.26	99.00	98.72	98.52	98.24	97.96	97.71	97.49	97.30	97.10	96.88	96.67	96.49	96.31	96.12
S188	0.8173	100.06	99.83	99.62	99.36	99.10	98.78	98.58	98.33	98.13	97.88	97.69	97.44	97.22	97.03	96.83	96.71	96.55	96.44
S189	0.8169	100.07	99.83	99.63	99.37	99.08	98.77	98.57	98.29	98.09	97.87	97.62	97.37	97.16	96.96	96.77	96.61	96.42	96.27
S190	0.8169	100.03	99.81	99.63	99.35	99.03	98.75	98.50	98.22	98.02	97.80	97.58	97.38	97.16	96.95	96.76	96.60	96.42	96.23
S191	0.8172	100.07	99.86	99.65	99.37	99.11	98.79	98.59	98.34	98.14	97.92	97.67	97.42	97.23	97.03	96.81	96.66	96.54	96.35
S192	0.8162	99.97	99.76	99.57	99.31	99.02	98.76	98.48	98.21	97.95	97.76	97.56	97.34	97.13	96.91	96.70	96.54	96.38	96.20
S193	0.8162	99.99	99.77	99.57	99.29	99.02	98.74	98.46	98.21	98.01	97.76	97.54	97.32	97.13	96.91	96.71	96.55	96.37	96.25
S194	0.8158	100.04	99.82	99.62	99.34	99.07	98.81	98.61	98.36	98.11	97.86	97.66	97.44	97.24	97.03	96.82	96.66	96.47	96.31
S195	0.8157	100.08	99.87	99.66	99.35	99.07	98.75	98.47	98.27	98.07	97.88	97.63	97.43	97.23	97.02	96.81	96.63	96.47	96.31
S196	0.7986	100.01	99.79	99.59	99.33	99.01	98.70	98.50	98.25	98.00	97.78	97.53	97.33	97.13	96.94	96.72	96.61	96.42	96.26
S197	0.7991	100.01	99.79	99.59	99.32	99.06	98.75	98.47	98.27	97.99	97.77	97.55	97.35	97.14	96.93	96.73	96.57	96.39	96.27
S198	0.7990	100.01	99.80	99.61	99.33	99.04	98.73	98.45	98.25	98.05	97.80	97.58	97.33	97.14	96.92	96.71	96.55	96.43	96.27
S199	0.7985	100.08	99.85	99.67	99.35	99.04	98.72	98.44	98.19	97.99	97.74	97.55	97.35	97.14	96.92	96.71	96.55	96.44	96.32
S200	0.7978	99.98	99.75	99.55	99.23	98.95	98.67	98.47	98.19	97.91	97.71	97.49	97.30	97.08	96.87	96.65	96.53	96.35	96.19
Ave.	0.8107	100.03	99.81	99.61	99.32	99.04	98.74	98.50	98.26	98.03	97.81	97.58	97.37	97.16	96.95	96.74	96.59	96.43	96.28
Med.	0.8090	100.02	99.80	99.61	99.32	99.03	98.75	98.48	98.25	98.03	97.80	97.58	97.36	97.16	96.95	96.74	96.60	96.44	96.27
St dev	0.0085	0.0359	0.0350	0.0366	0.0451	0.0545	0.0506	0.0612	0.0629	0.0758	0.0751	0.0739	0.0728	0.0732	0.0740	0.0731	0.0748	0.0863	0.0846
Min.	0.7978	99.97	99.75	99.55	99.23	98.92	98.63	98.36	98.10	97.83	97.63	97.38	97.16	96.96	96.75	96.53	96.38	96.19	96.07
Max.	0.8343	100.09	99.87	99.68	99.41	99.15	98.86	98.61	98.38	98.19	97.99	97.74	97.54	97.34	97.13	96.91	96.73	96.61	96.45

3.39 Data Set 8, 85°C, 960mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S176	6.343	6.342	6.335	6.334	6.338	6.336	6.335	6.327	6.324	6.321	6.328	6.323	6.319	6.315	6.321	6.315	6.314	6.312	6.309
S177	6.351	6.351	6.345	6.346	6.344	6.343	6.340	6.340	6.334	6.336	6.336	6.329	6.329	6.326	6.322	6.320	6.322	6.317	6.319
S178	6.334	6.326	6.334	6.327	6.329	6.321	6.321	6.319	6.319	6.312	6.319	6.312	6.309	6.312	6.310	6.302	6.303	6.303	6.300
S179	6.331	6.323	6.325	6.324	6.326	6.324	6.324	6.320	6.316	6.310	6.310	6.312	6.307	6.306	6.305	6.301	6.304	6.302	6.296
S180	6.301	6.296	6.297	6.294	6.296	6.288	6.287	6.284	6.289	6.285	6.284	6.280	6.277	6.275	6.279	6.275	6.267	6.268	6.272
S181	6.329	6.323	6.324	6.321	6.324	6.321	6.316	6.318	6.315	6.307	6.307	6.307	6.307	6.305	6.303	6.303	6.302	6.298	6.294
S182	6.334	6.335	6.326	6.329	6.326	6.327	6.327	6.322	6.322	6.312	6.313	6.313	6.313	6.312	6.312	6.305	6.302	6.299	6.299
S183	6.335	6.330	6.330	6.330	6.327	6.327	6.327	6.318	6.318	6.318	6.313	6.316	6.314	6.313	6.311	6.309	6.303	6.300	6.303
S184	6.336	6.332	6.328	6.331	6.329	6.323	6.328	6.325	6.324	6.319	6.320	6.315	6.315	6.310	6.305	6.306	6.305	6.307	6.302
S185	6.370	6.365	6.365	6.362	6.363	6.358	6.357	6.356	6.351	6.354	6.349	6.348	6.349	6.344	6.345	6.340	6.343	6.339	6.335
S186	6.369	6.361	6.361	6.361	6.364	6.361	6.355	6.354	6.355	6.354	6.348	6.345	6.345	6.347	6.340	6.338	6.339	6.336	6.334
S187	6.367	6.365	6.362	6.362	6.356	6.359	6.358	6.355	6.353	6.352	6.350	6.345	6.346	6.341	6.343	6.337	6.338	6.341	6.335
S188	6.358	6.353	6.357	6.351	6.353	6.351	6.344	6.346	6.341	6.342	6.343	6.337	6.334	6.336	6.332	6.332	6.331	6.324	6.323
S189	6.372	6.366	6.364	6.367	6.362	6.364	6.360	6.360	6.358	6.357	6.351	6.345	6.352	6.346	6.350	6.344	6.343	6.338	6.337
S190	6.364	6.364	6.358	6.355	6.355	6.357	6.352	6.350	6.350	6.347	6.348	6.345	6.343	6.339	6.335	6.338	6.333	6.333	6.333
S191	6.362	6.360	6.359	6.354	6.357	6.355	6.355	6.348	6.348	6.341	6.347	6.337	6.341	6.340	6.336	6.332	6.328	6.330	6.331
S192	6.359	6.354	6.358	6.351	6.351	6.345	6.345	6.347	6.347	6.338	6.344	6.339	6.338	6.337	6.333	6.329	6.329	6.324	6.324
S193	6.327	6.322	6.321	6.319	6.318	6.318	6.319	6.312	6.316	6.310	6.311	6.306	6.302	6.305	6.300	6.299	6.296	6.295	6.292
S194	6.356	6.357	6.354	6.351	6.351	6.349	6.349	6.342	6.342	6.342	6.339	6.335	6.337	6.325	6.331	6.323	6.327	6.323	6.321
S195	6.375	6.367	6.370	6.370	6.370	6.368	6.363	6.360	6.356	6.358	6.359	6.348	6.354	6.351	6.346	6.349	6.343	6.346	6.344
S196	6.349	6.345	6.349	6.341	6.341	6.336	6.338	6.335	6.335	6.327	6.327	6.328	6.324	6.320	6.325	6.323	6.318	6.315	6.320
S197	6.309	6.305	6.308	6.300	6.301	6.302	6.302	6.295	6.292	6.295	6.295	6.287	6.288	6.287	6.284	6.283	6.278	6.278	6.283
S198	6.345	6.340	6.340	6.340	6.336	6.337	6.337	6.334	6.328	6.330	6.324	6.326	6.318	6.319	6.321	6.314	6.318	6.316	6.314
S199	6.339	6.340	6.334	6.331	6.328	6.331	6.332	6.325	6.325	6.318	6.322	6.312	6.318	6.317	6.313	6.313	6.307	6.311	6.307
S200	6.343	6.337	6.337	6.336	6.336	6.336	6.336	6.332	6.326	6.326	6.321	6.322	6.322	6.316	6.319	6.317	6.312	6.311	6.308
Ave.	6.346	6.343	6.342	6.340	6.339	6.338	6.336	6.333	6.331	6.329	6.328	6.325	6.324	6.322	6.321	6.318	6.316	6.315	6.313
Med.	6.345	6.342	6.340	6.340	6.338	6.336	6.337	6.334	6.328	6.327	6.327	6.326	6.322	6.319	6.321	6.317	6.318	6.315	6.314
St dev	0.0193	0.0196	0.0192	0.0196	0.0191	0.0198	0.0187	0.0197	0.0189	0.0200	0.0195	0.0185	0.0200	0.0191	0.0188	0.0188	0.0199	0.0194	0.0187
Min.	6.301	6.296	6.297	6.294	6.296	6.288	6.287	6.284	6.289	6.285	6.284	6.280	6.277	6.275	6.279	6.275	6.267	6.268	6.272
Max.	6.375	6.367	6.370	6.370	6.370	6.368	6.363	6.360	6.358	6.358	6.359	6.348	6.354	6.351	6.350	6.349	6.343	6.346	6.344

3.40 Data Set 8, 85°C, 960mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S176	0.2569	0.5251	2831	0.0002	0.0004	0.0007	0.0010	0.0012	0.0014	0.0017	0.0020	0.0023	0.0024	0.0025	0.0028	0.0029	0.0032	0.0033	0.0036	0.0037	0.0039
S177	0.2567	0.5248	2837	0.0001	0.0004	0.0005	0.0009	0.0012	0.0014	0.0017	0.0019	0.0022	0.0023	0.0026	0.0027	0.0030	0.0034	0.0036	0.0038	0.0040	0.0043
S178	0.2572	0.5265	2816	0.0003	0.0004	0.0007	0.0010	0.0013	0.0014	0.0017	0.0020	0.0023	0.0024	0.0026	0.0027	0.0029	0.0033	0.0036	0.0038	0.0040	0.0042
S179	0.2566	0.5247	2840	0.0001	0.0003	0.0005	0.0008	0.0011	0.0013	0.0016	0.0018	0.0021	0.0022	0.0025	0.0026	0.0027	0.0030	0.0033	0.0034	0.0036	0.0039
S180	0.2569	0.5248	2831	0.0002	0.0004	0.0005	0.0009	0.0012	0.0014	0.0016	0.0019	0.0022	0.0024	0.0025	0.0026	0.0028	0.0031	0.0034	0.0036	0.0038	0.0040
S181	0.2575	0.5260	2812	0.0002	0.0003	0.0005	0.0008	0.0011	0.0013	0.0017	0.0019	0.0022	0.0023	0.0024	0.0027	0.0030	0.0032	0.0034	0.0035	0.0037	0.0039
S182	0.2569	0.5263	2825	0.0002	0.0005	0.0006	0.0010	0.0012	0.0014	0.0017	0.0020	0.0023	0.0026	0.0027	0.0029	0.0031	0.0033	0.0035	0.0037	0.0039	0.0040
S183	0.2569	0.5252	2830	0.0001	0.0003	0.0005	0.0008	0.0010	0.0012	0.0016	0.0018	0.0021	0.0022	0.0023	0.0024	0.0026	0.0030	0.0032	0.0034	0.0036	0.0039
S184	0.2567	0.5245	2838	0.0002	0.0003	0.0005	0.0007	0.0010	0.0011	0.0014	0.0016	0.0019	0.0020	0.0023	0.0024	0.0025	0.0029	0.0031	0.0033	0.0034	0.0036
S185	0.2618	0.5287	2709	0.0001	0.0004	0.0007	0.0009	0.0011	0.0012	0.0015	0.0019	0.0021	0.0022	0.0025	0.0026	0.0027	0.0031	0.0033	0.0034	0.0036	0.0037
S186	0.2557	0.5289	2839	0.0002	0.0005	0.0006	0.0009	0.0013	0.0014	0.0017	0.0020	0.0024	0.0026	0.0029	0.0030	0.0031	0.0035	0.0038	0.0039	0.0042	0.0044
S187	0.2556	0.5284	2843	0.0002	0.0003	0.0005	0.0008	0.0011	0.0013	0.0015	0.0019	0.0022	0.0024	0.0025	0.0026	0.0029	0.0032	0.0035	0.0037	0.0039	0.0040
S188	0.2563	0.5298	2821	0.0001	0.0003	0.0006	0.0009	0.0011	0.0012	0.0015	0.0019	0.0021	0.0024	0.0026	0.0027	0.0029	0.0033	0.0035	0.0036	0.0038	0.0040
S189	0.2559	0.5293	2833	0.0001	0.0003	0.0006	0.0009	0.0012	0.0014	0.0017	0.0020	0.0023	0.0024	0.0027	0.0028	0.0031	0.0034	0.0036	0.0038	0.0039	0.0040
S190	0.2557	0.5291	2839	0.0002	0.0004	0.0006	0.0009	0.0012	0.0014	0.0018	0.0020	0.0024	0.0026	0.0028	0.0029	0.0031	0.0033	0.0035	0.0036	0.0038	0.0040
S191	0.2558	0.5300	2832	0.0003	0.0004	0.0005	0.0009	0.0011	0.0013	0.0017	0.0020	0.0022	0.0023	0.0026	0.0027	0.0030	0.0033	0.0036	0.0038	0.0039	0.0041
S192	0.2561	0.5302	2825	0.0001	0.0003	0.0005	0.0008	0.0010	0.0011	0.0014	0.0017	0.0020	0.0023	0.0024	0.0026	0.0028	0.0032	0.0033	0.0036	0.0039	0.0041
S193	0.2557	0.5285	2839	0.0001	0.0003	0.0006	0.0009	0.0011	0.0013	0.0016	0.0019	0.0021	0.0024	0.0025	0.0026	0.0027	0.0030	0.0033	0.0035	0.0036	0.0038
S194	0.2554	0.5284	2848	0.0001	0.0003	0.0005	0.0008	0.0010	0.0011	0.0014	0.0017	0.0020	0.0021	0.0024	0.0026	0.0028	0.0032	0.0033	0.0035	0.0036	0.0038
S195	0.2554	0.5285	2847	0.0002	0.0005	0.0006	0.0008	0.0010	0.0012	0.0015	0.0019	0.0021	0.0023	0.0024	0.0026	0.0029	0.0032	0.0034	0.0036	0.0039	0.0041
S196	0.2548	0.5298	2853	0.0003	0.0005	0.0007	0.0010	0.0013	0.0015	0.0019	0.0021	0.0024	0.0026	0.0027	0.0030	0.0032	0.0035	0.0038	0.0040	0.0041	0.0042
S197	0.2550	0.5296	2851	0.0002	0.0004	0.0006	0.0009	0.0012	0.0014	0.0017	0.0020	0.0023	0.0024	0.0025	0.0026	0.0029	0.0031	0.0033	0.0035	0.0038	0.0041
S198	0.2547	0.5293	2858	0.0002	0.0004	0.0005	0.0009	0.0012	0.0014	0.0017	0.0019	0.0022	0.0023	0.0024	0.0027	0.0029	0.0033	0.0034	0.0036	0.0038	0.0040
S199	0.2553	0.5311	2837	0.0003	0.0005	0.0007	0.0010	0.0013	0.0015	0.0018	0.0021	0.0024	0.0026	0.0027	0.0030	0.0031	0.0035	0.0036	0.0039	0.0042	0.0044
S200	0.2549	0.5300	2852	0.0001	0.0003	0.0005	0.0008	0.0011	0.0013	0.0016	0.0019	0.0022	0.0024	0.0025	0.0026	0.0028	0.0031	0.0033	0.0035	0.0037	0.0039
Ave.	0.2563	0.5279	2831	0.0002	0.0004	0.0006	0.0009	0.0011	0.0013	0.0016	0.0019	0.0022	0.0024	0.0025	0.0027	0.0029	0.0032	0.0034	0.0036	0.0038	0.0040
Med.	0.2559	0.5285	2837	0.0002	0.0004	0.0006	0.0009	0.0011	0.0013	0.0017	0.0019	0.0022	0.0024	0.0025	0.0027	0.0029	0.0032	0.0034	0.0036	0.0038	0.0040
St dev	0.0014	0.0021	27.9733	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2547	0.5245	2709	0.0001	0.0003	0.0005	0.0007	0.0010	0.0011	0.0014	0.0016	0.0019	0.0020	0.0023	0.0024	0.0025	0.0029	0.0031	0.0033	0.0034	0.0036
Max.	0.2618	0.5311	2858	0.0003	0.0005	0.0007	0.0010	0.0013	0.0015	0.0019	0.0021	0.0024	0.0026	0.0029	0.0030	0.0032	0.0035	0.0038	0.0040	0.0042	0.0044

3.41 Data Set 9, 105°C, 960mA (Lumen Maintenance)

Sample Number	Φ(lm)	Lumen Maintenance (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S201	776.3	99.97	99.76	99.55	99.26	98.97	98.64	98.37	98.11	97.84	97.62	97.40	97.17	96.95	96.74	96.50	96.28	96.07	95.86
S202	774.9	99.91	99.70	99.45	99.16	98.83	98.54	98.23	97.97	97.70	97.47	97.26	97.03	96.78	96.57	96.35	96.19	96.03	95.82
S203	779.3	99.88	99.63	99.38	99.09	98.76	98.44	98.18	97.91	97.65	97.42	97.20	96.97	96.76	96.51	96.30	96.08	95.86	95.70
S204	777.0	99.98	99.77	99.56	99.27	98.95	98.62	98.36	98.12	97.81	97.58	97.35	97.12	96.91	96.67	96.43	96.26	96.05	95.84
S205	777.9	99.90	99.64	99.39	99.10	98.81	98.50	98.26	98.01	97.77	97.54	97.33	97.10	96.86	96.64	96.43	96.22	96.01	95.80
S206	776.7	99.93	99.72	99.46	99.13	98.80	98.47	98.21	97.94	97.68	97.45	97.22	96.99	96.75	96.54	96.32	96.16	95.95	95.74
S207	772.6	99.99	99.73	99.53	99.21	98.92	98.63	98.32	98.06	97.79	97.57	97.35	97.13	96.92	96.68	96.43	96.27	96.05	95.84
S208	774.5	99.98	99.77	99.51	99.22	98.91	98.58	98.31	98.07	97.77	97.55	97.32	97.09	96.85	96.61	96.39	96.18	96.02	95.86
S209	774.7	99.98	99.72	99.47	99.18	98.89	98.58	98.31	98.00	97.70	97.47	97.24	97.01	96.80	96.58	96.34	96.18	95.96	95.80
S210	773.4	99.98	99.73	99.48	99.16	98.83	98.50	98.23	97.93	97.66	97.43	97.20	96.99	96.75	96.53	96.29	96.08	95.91	95.70
S211	769.9	99.96	99.75	99.54	99.21	98.92	98.61	98.37	98.13	97.86	97.63	97.40	97.19	96.97	96.76	96.55	96.34	96.12	95.90
S212	771.6	99.90	99.65	99.44	99.15	98.86	98.53	98.22	97.98	97.67	97.46	97.23	97.00	96.79	96.57	96.35	96.14	95.93	95.72
S213	767.9	99.91	99.71	99.45	99.16	98.83	98.54	98.23	97.99	97.73	97.51	97.28	97.07	96.83	96.58	96.37	96.16	95.94	95.73
S214	769.7	99.91	99.70	99.45	99.14	98.82	98.51	98.24	97.98	97.73	97.52	97.29	97.07	96.86	96.61	96.37	96.16	95.99	95.78
S215	772.4	99.89	99.64	99.43	99.10	98.76	98.43	98.17	97.93	97.68	97.47	97.25	97.04	96.79	96.58	96.34	96.13	95.96	95.75
S216	771.7	99.99	99.73	99.52	99.19	98.90	98.57	98.33	98.07	97.82	97.60	97.37	97.14	96.92	96.68	96.44	96.28	96.12	95.95
S217	769.4	99.93	99.68	99.43	99.09	98.76	98.43	98.17	97.90	97.66	97.44	97.22	97.00	96.76	96.52	96.27	96.06	95.84	95.63
S218	767.4	99.91	99.66	99.40	99.09	98.77	98.48	98.22	97.98	97.74	97.52	97.29	97.06	96.85	96.64	96.42	96.21	95.99	95.83
S219	768.3	99.98	99.73	99.48	99.16	98.85	98.56	98.29	98.05	97.74	97.51	97.30	97.08	96.84	96.62	96.38	96.17	95.95	95.74
S220	770.5	99.90	99.69	99.49	99.15	98.86	98.53	98.29	98.05	97.74	97.51	97.29	97.06	96.84	96.62	96.41	96.20	95.99	95.77
S221	772.8	99.94	99.73	99.48	99.19	98.86	98.53	98.22	97.96	97.69	97.46	97.23	97.00	96.79	96.54	96.33	96.12	95.90	95.68
S222	774.3	99.95	99.70	99.45	99.16	98.82	98.49	98.25	97.99	97.72	97.49	97.26	97.04	96.82	96.60	96.36	96.20	95.98	95.82
S223	773.2	99.95	99.69	99.44	99.15	98.84	98.50	98.26	98.02	97.76	97.53	97.30	97.07	96.86	96.64	96.40	96.24	96.02	95.81
S224	775.2	99.96	99.75	99.54	99.21	98.89	98.61	98.30	98.03	97.77	97.54	97.31	97.08	96.84	96.60	96.38	96.17	95.95	95.73
S225	772.9	99.92	99.66	99.45	99.16	98.83	98.52	98.25	97.95	97.64	97.41	97.18	96.97	96.75	96.54	96.29	96.13	95.97	95.81
Ave.	773.0	99.94	99.71	99.47	99.16	98.85	98.53	98.26	98.00	97.73	97.51	97.28	97.06	96.83	96.61	96.38	96.18	95.98	95.78
Med.	772.9	99.94	99.71	99.46	99.16	98.84	98.53	98.25	97.99	97.73	97.51	97.29	97.06	96.84	96.60	96.37	96.18	95.98	95.80
St dev	3.1829	0.0344	0.0417	0.0501	0.0500	0.0588	0.0602	0.0600	0.0647	0.0617	0.0607	0.0612	0.0610	0.0648	0.0652	0.0654	0.0692	0.0691	0.0735
Min.	767.4	99.88	99.63	99.38	99.09	98.76	98.43	98.17	97.90	97.64	97.41	97.18	96.97	96.75	96.51	96.27	96.06	95.84	95.63
Max.	779.3	99.99	99.77	99.56	99.27	98.97	98.64	98.37	98.13	97.86	97.63	97.40	97.19	96.97	96.76	96.55	96.34	96.12	95.95

3.42 Data Set 9, 105°C, 960mA (Photon Flux Maintenance, Photosynthetic (PFMp))

Sample Number	PPF (umol/s)	Photon Flux Maintenance, Photosynthetic (PFMp) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S201	11.97	99.89	99.65	99.36	99.08	98.73	98.38	98.11	97.83	97.54	97.33	97.05	96.84	96.61	96.40	96.18	95.96	95.75	95.59
S202	11.96	99.89	99.65	99.36	99.08	98.79	98.51	98.23	97.96	97.68	97.40	97.12	96.85	96.64	96.43	96.20	96.05	95.83	95.68
S203	11.96	99.87	99.64	99.35	99.00	98.71	98.43	98.15	97.86	97.56	97.35	97.08	96.87	96.66	96.43	96.20	95.99	95.77	95.56
S204	11.96	99.92	99.69	99.45	99.10	98.76	98.47	98.18	97.91	97.63	97.35	97.08	96.81	96.60	96.37	96.19	95.97	95.76	95.55
S205	11.95	99.88	99.59	99.30	98.95	98.60	98.26	97.98	97.69	97.42	97.20	96.93	96.71	96.49	96.30	96.07	95.92	95.70	95.49
S206	11.95	99.95	99.66	99.37	99.03	98.68	98.33	98.05	97.78	97.49	97.28	97.06	96.79	96.58	96.40	96.21	96.00	95.84	95.63
S207	11.94	99.97	99.73	99.44	99.10	98.81	98.53	98.25	97.98	97.70	97.49	97.28	97.00	96.81	96.60	96.42	96.20	95.99	95.83
S208	11.94	99.95	99.66	99.37	99.03	98.74	98.39	98.12	97.83	97.55	97.27	97.00	96.72	96.51	96.30	96.12	95.96	95.74	95.53
S209	11.94	99.94	99.70	99.47	99.18	98.84	98.49	98.22	97.92	97.65	97.38	97.10	96.82	96.61	96.40	96.21	96.00	95.79	95.57
S210	11.93	99.87	99.63	99.40	99.11	98.76	98.42	98.12	97.83	97.53	97.26	97.05	96.84	96.65	96.47	96.28	96.07	95.85	95.64
S211	11.82	99.91	99.67	99.38	99.10	98.75	98.47	98.20	97.90	97.63	97.35	97.07	96.86	96.63	96.44	96.26	96.04	95.89	95.67
S212	11.82	99.88	99.59	99.36	99.01	98.66	98.31	98.04	97.77	97.47	97.19	96.92	96.65	96.44	96.21	95.98	95.83	95.61	95.40
S213	11.82	99.95	99.66	99.42	99.07	98.79	98.50	98.23	97.94	97.67	97.39	97.11	96.90	96.67	96.45	96.24	96.08	95.93	95.71
S214	11.81	99.96	99.72	99.43	99.09	98.74	98.39	98.11	97.84	97.56	97.35	97.07	96.79	96.61	96.42	96.21	96.00	95.79	95.57
S215	11.81	99.94	99.70	99.47	99.12	98.83	98.48	98.21	97.91	97.64	97.36	97.15	96.87	96.69	96.48	96.27	96.05	95.90	95.68
S216	11.80	99.93	99.70	99.46	99.11	98.76	98.48	98.20	97.93	97.64	97.36	97.08	96.81	96.58	96.40	96.19	96.03	95.88	95.72
S217	11.80	99.94	99.65	99.36	99.08	98.73	98.38	98.10	97.81	97.52	97.30	97.09	96.81	96.60	96.42	96.21	95.99	95.84	95.62
S218	11.80	99.86	99.57	99.34	98.99	98.70	98.35	98.08	97.78	97.51	97.24	97.03	96.81	96.63	96.44	96.26	96.04	95.83	95.61
S219	11.80	99.93	99.69	99.46	99.11	98.77	98.42	98.14	97.87	97.60	97.32	97.05	96.84	96.61	96.38	96.20	96.04	95.83	95.67
S220	11.80	99.91	99.68	99.39	99.04	98.75	98.40	98.13	97.84	97.55	97.33	97.05	96.78	96.57	96.36	96.15	95.94	95.72	95.51
S221	11.89	99.98	99.74	99.45	99.17	98.82	98.47	98.19	97.92	97.62	97.41	97.20	96.92	96.73	96.55	96.34	96.12	95.91	95.70
S222	11.80	99.87	99.58	99.34	98.99	98.70	98.35	98.08	97.79	97.51	97.23	96.96	96.74	96.52	96.29	96.10	95.95	95.79	95.58
S223	11.88	99.88	99.65	99.41	99.07	98.72	98.37	98.10	97.82	97.53	97.26	96.99	96.71	96.48	96.29	96.07	95.85	95.64	95.48
S224	11.88	99.89	99.60	99.37	99.02	98.67	98.39	98.11	97.82	97.54	97.33	97.12	96.91	96.72	96.51	96.30	96.15	95.93	95.78
S225	11.88	99.95	99.71	99.48	99.13	98.85	98.56	98.29	97.99	97.72	97.51	97.29	97.02	96.81	96.58	96.40	96.19	96.03	95.82
Ave.	11.88	99.92	99.66	99.40	99.07	98.75	98.42	98.15	97.86	97.58	97.33	97.08	96.83	96.62	96.41	96.21	96.02	95.82	95.62
Med.	11.88	99.92	99.66	99.39	99.08	98.75	98.42	98.13	97.84	97.56	97.33	97.07	96.82	96.61	96.42	96.21	96.00	95.83	95.62
St dev	0.0674	0.0357	0.0479	0.0502	0.0573	0.0591	0.0732	0.0732	0.0738	0.0766	0.0783	0.0903	0.0858	0.0931	0.0927	0.0990	0.0906	0.0997	0.1054
Min.	11.80	99.86	99.57	99.30	98.95	98.60	98.26	97.98	97.69	97.42	97.19	96.92	96.65	96.44	96.21	95.98	95.83	95.61	95.40
Max.	11.97	99.98	99.74	99.48	99.18	98.85	98.56	98.29	97.99	97.72	97.51	97.29	97.02	96.81	96.60	96.42	96.20	96.03	95.83

3.43 Data Set 9, 105°C, 960mA (Photon Flux Maintenance,Far-Red (PFM_{FR}))

Sample Number	PPF (umol/s)	Photon Flux Maintenance,Far-Red (PFM_{FR}) (%)																	
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S201	0.8066	100.00	99.72	99.44	99.16	98.87	98.55	98.25	97.94	97.65	97.45	97.17	96.90	96.69	96.49	96.23	96.03	95.86	95.66
S202	0.8061	99.90	99.69	99.41	99.13	98.84	98.52	98.21	97.97	97.73	97.53	97.33	97.06	96.82	96.61	96.41	96.24	96.04	95.86
S203	0.8058	99.87	99.65	99.37	99.08	98.76	98.47	98.16	97.86	97.55	97.28	97.00	96.72	96.48	96.28	96.02	95.82	95.63	95.47
S204	0.8061	100.01	99.73	99.52	99.22	98.93	98.63	98.32	98.02	97.73	97.45	97.25	96.97	96.71	96.51	96.31	96.12	95.94	95.77
S205	0.8053	99.96	99.74	99.53	99.25	98.97	98.67	98.36	98.08	97.84	97.63	97.43	97.15	96.91	96.65	96.39	96.23	96.02	95.86
S206	0.8053	99.87	99.59	99.31	99.02	98.74	98.42	98.11	97.83	97.59	97.31	97.02	96.74	96.54	96.30	96.04	95.84	95.64	95.45
S207	0.8053	99.94	99.66	99.39	99.10	98.82	98.54	98.26	97.97	97.73	97.45	97.25	96.97	96.71	96.51	96.31	96.14	95.94	95.76
S208	0.8051	99.95	99.67	99.46	99.16	98.88	98.58	98.28	97.97	97.68	97.48	97.20	96.92	96.68	96.42	96.18	96.01	95.85	95.65
S209	0.8050	99.89	99.68	99.40	99.10	98.81	98.53	98.22	97.93	97.69	97.42	97.14	96.87	96.63	96.42	96.22	96.02	95.85	95.67
S210	0.8047	99.98	99.71	99.49	99.20	98.90	98.61	98.37	98.08	97.84	97.57	97.36	97.09	96.89	96.63	96.37	96.17	95.97	95.76
S211	0.8179	99.94	99.66	99.38	99.09	98.77	98.49	98.19	97.90	97.66	97.39	97.18	96.90	96.70	96.44	96.20	96.01	95.81	95.65
S212	0.8191	99.90	99.68	99.41	99.11	98.80	98.50	98.21	97.93	97.69	97.41	97.13	96.86	96.60	96.36	96.16	95.97	95.77	95.61
S213	0.8188	99.92	99.64	99.42	99.13	98.83	98.54	98.25	97.94	97.64	97.36	97.08	96.80	96.54	96.30	96.10	95.91	95.75	95.56
S214	0.8180	99.90	99.62	99.34	99.06	98.78	98.48	98.24	97.94	97.63	97.35	97.15	96.94	96.68	96.44	96.24	96.04	95.86	95.69
S215	0.8182	99.98	99.76	99.55	99.23	98.92	98.62	98.32	98.01	97.72	97.52	97.32	97.12	96.88	96.67	96.47	96.30	96.12	95.94
S216	0.8181	99.94	99.66	99.39	99.11	98.82	98.54	98.26	98.02	97.73	97.53	97.32	97.04	96.80	96.60	96.40	96.21	96.01	95.81
S217	0.8180	100.00	99.79	99.51	99.21	98.93	98.65	98.41	98.13	97.84	97.64	97.35	97.15	96.91	96.65	96.45	96.28	96.12	95.95
S218	0.8170	99.86	99.59	99.31	99.01	98.73	98.42	98.13	97.89	97.65	97.38	97.10	96.89	96.65	96.45	96.21	96.01	95.82	95.62
S219	0.8177	100.00	99.72	99.44	99.16	98.85	98.55	98.24	97.94	97.65	97.45	97.17	96.89	96.69	96.49	96.23	96.04	95.84	95.68
S220	0.8175	100.00	99.79	99.51	99.20	98.90	98.61	98.30	97.99	97.75	97.55	97.27	97.07	96.83	96.57	96.33	96.16	95.99	95.81
S221	0.8297	99.90	99.62	99.34	99.04	98.73	98.42	98.13	97.89	97.65	97.37	97.10	96.90	96.64	96.44	96.23	96.07	95.87	95.68
S222	0.7850	99.87	99.66	99.38	99.06	98.78	98.50	98.20	97.91	97.60	97.40	97.20	96.92	96.68	96.42	96.21	96.05	95.88	95.70
S223	0.7989	99.88	99.60	99.32	99.01	98.69	98.40	98.09	97.85	97.61	97.41	97.13	96.85	96.59	96.39	96.15	95.98	95.82	95.62
S224	0.7989	99.99	99.77	99.56	99.24	98.93	98.61	98.31	98.00	97.71	97.43	97.15	96.87	96.67	96.41	96.17	96.00	95.84	95.67
S225	0.7986	99.99	99.72	99.50	99.21	98.89	98.58	98.34	98.10	97.81	97.61	97.40	97.20	97.00	96.79	96.55	96.39	96.22	96.06
Ave.	0.8099	99.94	99.68	99.43	99.13	98.84	98.54	98.25	97.96	97.69	97.45	97.21	96.95	96.72	96.49	96.26	96.08	95.90	95.72
Med.	0.8061	99.94	99.68	99.41	99.13	98.83	98.54	98.25	97.94	97.69	97.45	97.18	96.92	96.69	96.45	96.23	96.04	95.86	95.68
St dev	0.0097	0.0512	0.0597	0.0765	0.0750	0.0750	0.0768	0.0836	0.0779	0.0788	0.0972	0.1165	0.1274	0.1306	0.1299	0.1335	0.1410	0.1416	0.1430
Min.	0.7850	99.86	99.59	99.31	99.01	98.69	98.40	98.09	97.83	97.55	97.28	97.00	96.72	96.48	96.28	96.02	95.82	95.63	95.45
Max.	0.8297	100.01	99.79	99.56	99.25	98.97	98.67	98.41	98.13	97.84	97.64	97.43	97.20	97.00	96.79	96.55	96.39	96.22	96.06

3.44 Data Set 9, 105°C, 960mA (Forward Voltage)

Sample Number	Forward Voltage(V)																		
	0hr (Initial)	1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000 hrs	11000 hrs	12000 hrs	13000 hrs	14000 hrs	15000 hrs	16000 hrs	17000 hrs	18000 hrs
S201	6.374	6.335	6.339	6.333	6.333	6.331	6.332	6.323	6.328	6.322	6.318	6.319	6.315	6.315	6.311	6.312	6.309	6.306	6.308
S202	6.378	6.340	6.348	6.343	6.342	6.334	6.335	6.334	6.331	6.329	6.325	6.324	6.327	6.319	6.318	6.315	6.316	6.316	6.309
S203	6.367	6.326	6.330	6.326	6.324	6.318	6.319	6.312	6.318	6.313	6.314	6.303	6.305	6.305	6.306	6.304	6.302	6.292	6.293
S204	6.363	6.327	6.321	6.324	6.317	6.318	6.315	6.310	6.310	6.310	6.308	6.301	6.304	6.298	6.298	6.292	6.299	6.297	6.297
S205	6.362	6.293	6.291	6.291	6.287	6.288	6.288	6.281	6.279	6.280	6.280	6.272	6.277	6.269	6.272	6.269	6.268	6.260	6.260
S206	6.332	6.321	6.321	6.320	6.316	6.313	6.317	6.314	6.313	6.306	6.310	6.306	6.301	6.298	6.297	6.298	6.291	6.288	6.292
S207	6.381	6.330	6.330	6.324	6.319	6.320	6.318	6.317	6.319	6.316	6.310	6.303	6.310	6.304	6.306	6.301	6.298	6.300	6.292
S208	6.363	6.324	6.324	6.328	6.326	6.318	6.318	6.318	6.313	6.314	6.312	6.311	6.308	6.303	6.304	6.303	6.304	6.298	6.300
S209	6.368	6.328	6.332	6.328	6.321	6.322	6.317	6.319	6.321	6.309	6.313	6.313	6.308	6.308	6.305	6.302	6.299	6.302	6.294
S210	6.367	6.360	6.360	6.357	6.360	6.356	6.354	6.355	6.349	6.350	6.349	6.346	6.342	6.340	6.337	6.334	6.334	6.334	6.336
S211	6.322	6.365	6.366	6.362	6.362	6.353	6.357	6.354	6.354	6.350	6.343	6.340	6.341	6.341	6.336	6.333	6.339	6.327	6.335
S212	6.312	6.357	6.356	6.352	6.353	6.357	6.354	6.345	6.345	6.348	6.342	6.339	6.339	6.337	6.339	6.328	6.329	6.332	6.325
S213	6.330	6.348	6.353	6.345	6.349	6.345	6.345	6.342	6.339	6.337	6.332	6.330	6.330	6.330	6.326	6.326	6.327	6.324	6.323
S214	6.313	6.368	6.364	6.364	6.363	6.357	6.355	6.355	6.350	6.348	6.347	6.344	6.345	6.341	6.344	6.339	6.339	6.338	6.330
S215	6.314	6.353	6.354	6.356	6.351	6.349	6.349	6.344	6.342	6.343	6.339	6.337	6.335	6.332	6.336	6.327	6.332	6.327	6.329
S216	6.309	6.359	6.352	6.355	6.353	6.346	6.346	6.340	6.340	6.337	6.335	6.338	6.338	6.333	6.329	6.331	6.325	6.328	6.325
S217	6.317	6.355	6.352	6.349	6.350	6.344	6.348	6.342	6.342	6.336	6.334	6.328	6.331	6.325	6.328	6.329	6.326	6.325	6.318
S218	6.324	6.320	6.319	6.316	6.315	6.311	6.311	6.312	6.306	6.307	6.300	6.303	6.297	6.295	6.297	6.290	6.289	6.293	6.292
S219	6.316	6.348	6.348	6.344	6.342	6.340	6.346	6.335	6.336	6.332	6.333	6.328	6.332	6.322	6.328	6.325	6.320	6.320	6.314
S220	6.279	6.371	6.364	6.366	6.365	6.363	6.359	6.353	6.358	6.354	6.352	6.347	6.348	6.346	6.347	6.342	6.345	6.340	6.338
S221	6.359	6.345	6.338	6.334	6.340	6.333	6.332	6.327	6.332	6.324	6.328	6.326	6.325	6.321	6.319	6.312	6.318	6.312	6.308
S222	6.359	6.306	6.298	6.299	6.296	6.294	6.293	6.292	6.287	6.291	6.290	6.282	6.278	6.277	6.277	6.272	6.273	6.273	6.274
S223	6.359	6.340	6.334	6.338	6.336	6.333	6.329	6.330	6.328	6.325	6.323	6.322	6.321	6.317	6.311	6.314	6.308	6.310	6.310
S224	6.358	6.336	6.331	6.328	6.331	6.323	6.323	6.322	6.318	6.316	6.317	6.315	6.315	6.311	6.307	6.308	6.305	6.304	6.304
S225	6.366	6.338	6.339	6.333	6.329	6.329	6.327	6.321	6.323	6.322	6.321	6.312	6.315	6.312	6.311	6.313	6.312	6.307	6.306
Ave.	6.344	6.340	6.339	6.337	6.335	6.332	6.331	6.328	6.327	6.325	6.323	6.320	6.319	6.316	6.315	6.313	6.312	6.310	6.308
Med.	6.359	6.340	6.339	6.334	6.336	6.333	6.332	6.327	6.328	6.324	6.323	6.322	6.321	6.317	6.311	6.313	6.312	6.310	6.308
St dev	0.0278	0.0193	0.0195	0.0192	0.0205	0.0196	0.0197	0.0192	0.0196	0.0191	0.0183	0.0193	0.0194	0.0199	0.0195	0.0194	0.0200	0.0201	0.0195
Min.	6.279	6.293	6.291	6.291	6.287	6.288	6.288	6.281	6.279	6.280	6.280	6.272	6.277	6.269	6.272	6.269	6.268	6.260	6.260
Max.	6.381	6.371	6.366	6.366	6.365	6.363	6.359	6.355	6.358	6.354	6.352	6.347	6.348	6.346	6.347	6.342	6.345	6.340	6.338

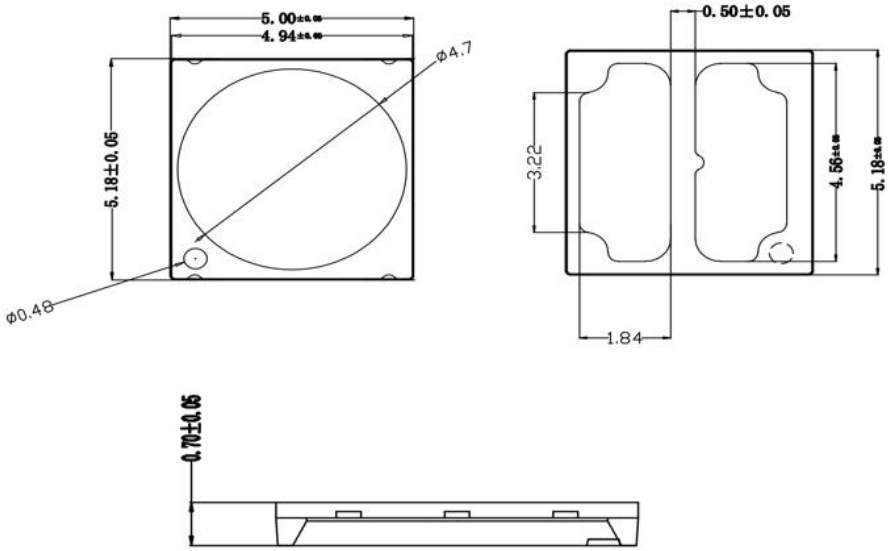
3.45 Data Set 9, 105°C, 960mA (Chromaticity Shift)

Sample Number	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')																
	0hr (Initial)			1000 hrs	2000 hrs	3000 hrs	4000 hrs	5000 hrs	6000 hrs	7000 hrs	8000 hrs	9000 hrs	10000hrs	11000hrs	12000hrs	13000hrs	14000hrs	15000hrs	16000hrs	17000hrs	18000hrs
S201	0.2568	0.5237	2839	0.0002	0.0004	0.0007	0.0010	0.0011	0.0012	0.0015	0.0017	0.0019	0.0022	0.0023	0.0024	0.0027	0.0029	0.0030	0.0033	0.0035	0.0037
S202	0.2570	0.5242	2833	0.0003	0.0006	0.0008	0.0010	0.0011	0.0014	0.0016	0.0019	0.0021	0.0024	0.0025	0.0027	0.0028	0.0030	0.0032	0.0035	0.0037	0.0040
S203	0.2569	0.5250	2831	0.0003	0.0006	0.0008	0.0012	0.0013	0.0016	0.0019	0.0021	0.0024	0.0026	0.0027	0.0029	0.0033	0.0036	0.0039	0.0042	0.0044	0.0047
S204	0.2565	0.5234	2848	0.0002	0.0004	0.0007	0.0010	0.0013	0.0017	0.0019	0.0021	0.0024	0.0026	0.0028	0.0030	0.0034	0.0036	0.0037	0.0040	0.0043	0.0045
S205	0.2574	0.5247	2820	0.0003	0.0005	0.0008	0.0011	0.0015	0.0018	0.0020	0.0023	0.0025	0.0026	0.0028	0.0030	0.0032	0.0036	0.0038	0.0041	0.0043	0.0045
S206	0.2569	0.5235	2839	0.0003	0.0005	0.0008	0.0011	0.0014	0.0015	0.0017	0.0020	0.0023	0.0025	0.0027	0.0030	0.0032	0.0033	0.0037	0.0039	0.0042	0.0044
S207	0.2565	0.5234	2847	0.0002	0.0004	0.0007	0.0010	0.0011	0.0014	0.0017	0.0019	0.0022	0.0024	0.0026	0.0029	0.0031	0.0034	0.0037	0.0040	0.0042	0.0045
S208	0.2572	0.5251	2823	0.0002	0.0004	0.0006	0.0010	0.0013	0.0016	0.0018	0.0021	0.0024	0.0027	0.0029	0.0031	0.0032	0.0035	0.0036	0.0039	0.0041	0.0044
S209	0.2566	0.5232	2846	0.0003	0.0006	0.0007	0.0008	0.0009	0.0013	0.0015	0.0017	0.0020	0.0022	0.0023	0.0026	0.0029	0.0032	0.0036	0.0039	0.0041	0.0044
S210	0.2568	0.5239	2838	0.0003	0.0006	0.0008	0.0011	0.0014	0.0018	0.0020	0.0022	0.0025	0.0027	0.0029	0.0031	0.0033	0.0036	0.0038	0.0040	0.0041	0.0044
S211	0.2553	0.5281	2853	0.0002	0.0005	0.0008	0.0011	0.0014	0.0018	0.0020	0.0022	0.0025	0.0027	0.0030	0.0031	0.0033	0.0035	0.0036	0.0039	0.0042	0.0045
S212	0.2549	0.5279	2861	0.0002	0.0004	0.0006	0.0009	0.0010	0.0011	0.0013	0.0016	0.0019	0.0021	0.0022	0.0025	0.0026	0.0029	0.0031	0.0033	0.0035	0.0038
S213	0.2550	0.5277	2861	0.0002	0.0005	0.0008	0.0011	0.0012	0.0015	0.0018	0.0021	0.0023	0.0025	0.0027	0.0029	0.0030	0.0034	0.0036	0.0038	0.0041	0.0044
S214	0.2556	0.5295	2839	0.0003	0.0006	0.0007	0.0011	0.0014	0.0017	0.0019	0.0022	0.0024	0.0026	0.0029	0.0031	0.0034	0.0036	0.0038	0.0041	0.0043	0.0045
S215	0.2554	0.5293	2844	0.0003	0.0004	0.0007	0.0011	0.0012	0.0013	0.0016	0.0018	0.0021	0.0023	0.0025	0.0026	0.0029	0.0032	0.0034	0.0036	0.0039	0.0042
S216	0.2559	0.5291	2834	0.0003	0.0006	0.0008	0.0011	0.0014	0.0017	0.0020	0.0022	0.0025	0.0027	0.0028	0.0030	0.0032	0.0034	0.0036	0.0037	0.0039	0.0042
S217	0.2551	0.5276	2859	0.0002	0.0004	0.0007	0.0010	0.0013	0.0017	0.0019	0.0021	0.0024	0.0025	0.0028	0.0030	0.0032	0.0035	0.0037	0.0039	0.0041	0.0043
S218	0.2555	0.5286	2845	0.0003	0.0006	0.0008	0.0011	0.0014	0.0015	0.0018	0.0020	0.0023	0.0025	0.0026	0.0028	0.0030	0.0033	0.0035	0.0037	0.0039	0.0042
S219	0.2552	0.5283	2853	0.0002	0.0004	0.0006	0.0010	0.0013	0.0014	0.0016	0.0019	0.0021	0.0023	0.0025	0.0027	0.0028	0.0031	0.0032	0.0034	0.0036	0.0039
S220	0.2553	0.5278	2852	0.0002	0.0005	0.0007	0.0010	0.0013	0.0014	0.0017	0.0019	0.0022	0.0024	0.0026	0.0028	0.0031	0.0035	0.0038	0.0041	0.0042	0.0044
S221	0.2568	0.5288	2814	0.0003	0.0006	0.0008	0.0012	0.0015	0.0018	0.0021	0.0024	0.0026	0.0028	0.0030	0.0032	0.0034	0.0036	0.0038	0.0040	0.0043	0.0046
S222	0.2557	0.5259	2853	0.0003	0.0004	0.0007	0.0008	0.0011	0.0014	0.0017	0.0020	0.0023	0.0024	0.0026	0.0028	0.0030	0.0032	0.0036	0.0038	0.0040	0.0043
S223	0.2567	0.5245	2837	0.0003	0.0004	0.0007	0.0008	0.0012	0.0013	0.0016	0.0019	0.0021	0.0023	0.0026	0.0028	0.0031	0.0034	0.0037	0.0040	0.0042	0.0045
S224	0.2577	0.5259	2810	0.0003	0.0004	0.0006	0.0010	0.0013	0.0016	0.0019	0.0022	0.0025	0.0027	0.0029	0.0031	0.0034	0.0037	0.0040	0.0042	0.0045	0.0048
S225	0.2569	0.5245	2835	0.0003	0.0006	0.0009	0.0012	0.0013	0.0014	0.0017	0.0019	0.0022	0.0024	0.0026	0.0027	0.0029	0.0031	0.0034	0.0037	0.0039	0.0042
Ave.	0.2562	0.5261	2841	0.0002	0.0005	0.0007	0.0010	0.0013	0.0015	0.0018	0.0020	0.0023	0.0025	0.0027	0.0029	0.0031	0.0034	0.0036	0.0038	0.0041	0.0043
Med.	0.2565	0.5259	2839	0.0003	0.0005	0.0007	0.0010	0.0013	0.0015	0.0018	0.0020	0.0023	0.0025	0.0027	0.0029	0.0031	0.0034	0.0036	0.0039	0.0041	0.0044
St dev	0.0008	0.0022	13.7661	0.0000	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003
Min.	0.2549	0.5232	2810	0.0002	0.0004	0.0006	0.0008	0.0009	0.0011	0.0013	0.0016	0.0019	0.0021	0.0022	0.0024	0.0026	0.0029	0.0030	0.0033	0.0035	0.0037
Max.	0.2577	0.5295	2861	0.0003	0.0006	0.0009	0.0012	0.0015	0.0018	0.0021	0.0024	0.0026	0.0028	0.0030	0.0032	0.0034	0.0037	0.0040	0.0042	0.0045	0.0048

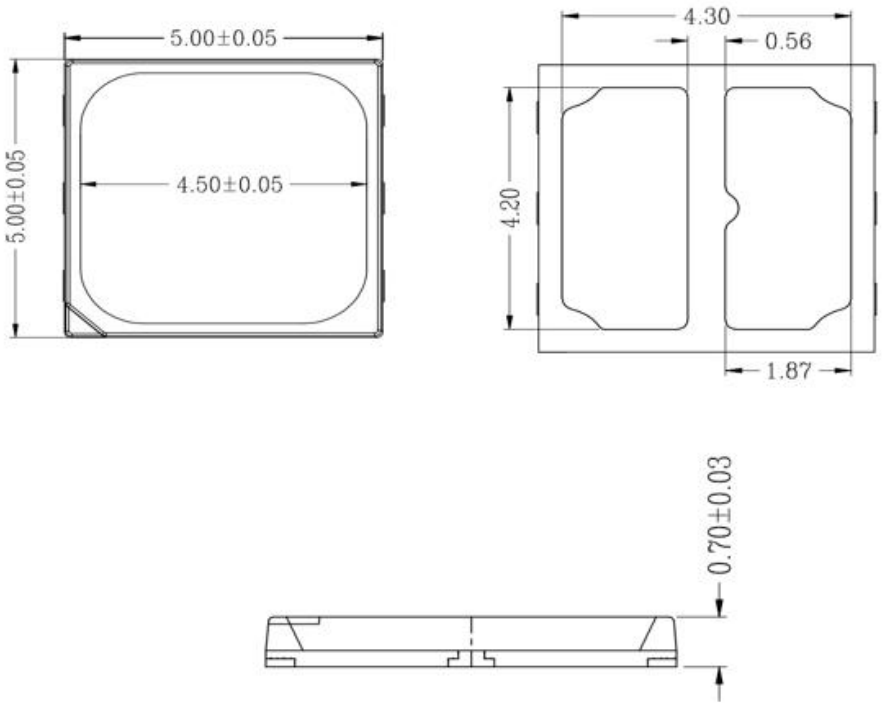
4. EUT Photo

4.1 Mechanical Dimensions

For EMC5050:



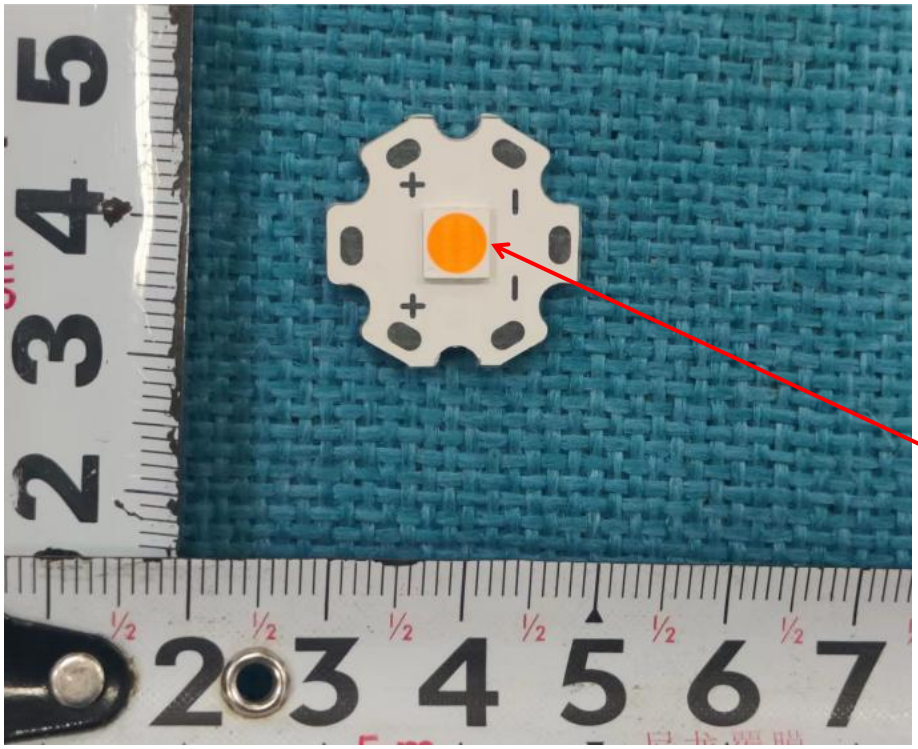
For EMC5050:



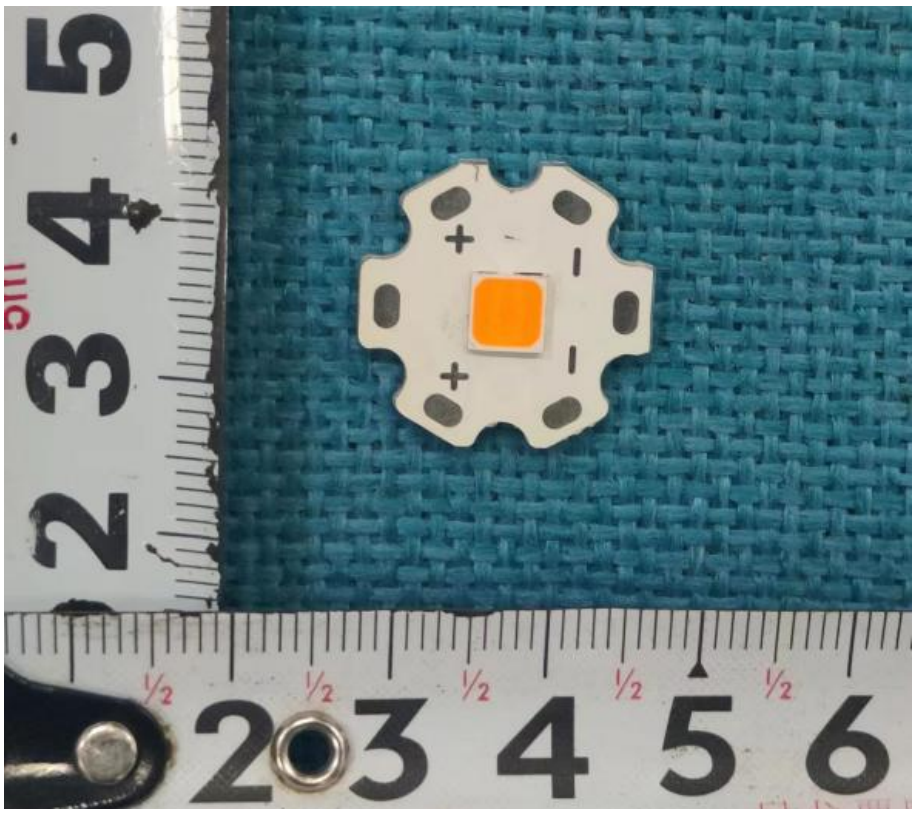
All dimensions are in millimeter

4.2 EUT Photo

For EMC5050 (Test Model):



For EMC5050:



---End of Report---